CIRCULATION IMPACT STUDY

for

3501 State Route 66 Redevelopment
Block 3903, Lots 12 & 13
Neptune Township
Monmouth County, New Jersey

Applicant:

3501 Rt 66 LLC
4488 West Boy Scout Boulevard, Suite 250
Tampa, Florida 33607

Prepared By:

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NJ Certificate of Authorization No: 24GA27996400

3 May 2024
100775002

LANGAN

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1.0 INTRODUCTION

On behalf of 3501 Rt 66, LLC ("applicant"), Langan has prepared this circulation impact study pursuant to § 811 of the Neptune Township land development ordinance (LDO). Applicants requesting preliminary major site plan approval need to prepare a circulation impact study as part of the application. The applicant is requesting minor subdivision approval to subdivide the project site into three tax lots and preliminary/major site plan approval to develop a 251,022 square foot warehouse and a 15,000 square foot retail building. The circulation impact study consists of two component reports addressing planning and traffic.

The project site is at the intersection of New Jersey State Highway Route 66 ("Route 66") and Green Grove Road in Neptune Township, Monmouth County, New Jersey (Figure 1 – USGS Site Location Map).

It should be noted that the New Jersey Department of Transportation (NJDOPT) is currently designing a widening project along Route 66. The applicant has coordinated with NJDOT to confirm design details for the proposed project are consistent with the widening project design. In addition, the applicant received a major access permit from NJDOT (dated September 13, 2023) for the proposed redevelopment.

This memorandum will address the required components of the planning report outlined under § 811.B of the land development ordinance. In addition, the memorandum includes a summary and copy of the traffic impact statement (TIS) (Appendix – Traffic Impact Study).

The report addresses the following topics:

- Introduction identifying the applicant, the location of the project site, and a project site description from a land use and transportation perspective.
- Extent to which the proposed street system meets requirements for street hierarchy, right-of-way and cartway width, and sidewalks.
- How the proposed circulation plan conforms to the Circulation Element of the Master Plan.
- The adequacy of the proposed internal circulation plan for vehicles, people, and the movement of goods.
- How the circulation plan addresses the safety of pedestrian safety, bicyclists, and the traveling public.

- Provisions made to provide connectivity to the street system, pedestrian generators, and the local and regional greenway network.

For the reasons discussed below, the project addresses each of the planning report topics and is consistent with the intent of the master plan circulation element.

2.0 PLANNING REPORT

2.1 Project Site Location and Project Description

The project site is at the northwest corner of Route 66 and Green Grove Road (Figure 2 – Vicinity Map). Municipal tax records identify the project site as Lots 12 and 13 of Block 3903 (Figure 3 – Tax Map). Existing site development consists of a three-story, 114,000 square foot masonry office building and accessory parking areas (Figure 4 – Aerial Photograph Map).

According to municipal tax records, the existing office building is over 50 years old. Access to the project site is via two full-access, stop-sign controlled driveways along Route 66 and two full-access, stop-sign controlled driveways along Green Grove Road. The project site is in the Route 66 Redevelopment Area. The project would demolish the office building, parking lots, and access driveways. Table 1 indicates the proposed lots and uses.

Table 1: Proposed Project

Proposed Block/Lot	Proposed Use	Acreage
3903 / 12.01	Warehouse	37.591
3903 / 13.01	Retail building	7.971
3903 / 13.02	Municipal recreation facility	1.845
TOTAL PROJECT SITE LOT AREA		**47.378**

Source: Master Minor Subdivision Plan, Drawing Nos. CB100-CB104 (bound separately).

The project includes the following improvements:

- Proposed Lot 12.01: 251,022 square foot warehouse, including 237,022 square feet of warehouse floor area and 14,000 square feet of office floor area, 144 car parking spaces, 32 loading docks, and 25 trailer parking spaces.
- Proposed Lot 13.01: 15,000 square foot retail building and 100 parking spaces.
- Proposed Lot 13.02: Developed with recreation amenities such as playground equipment and then dedicated to Neptune as a public park.

Other improvements include access roads, pedestrian walkways, stormwater management facilities, landscaping, and site lighting.

The proposed site access is via two right-in/right-out, stop-controlled driveways along Route 66, with alternative access on Green Grove Road via one stop-controlled driveway, which would provide full ingress and right-out only egress. The westernmost driveway along Route 66 will serve as the primary truck access for the warehouse. The proposed right-in/right-out driveway configuration along Route 66 is consistent with the New Jersey Department of Transportation (NJDOT) Route 66, Section 1 project that includes future widening across the site frontage.

2.2 Proposed Street System

The roadway classifications are from the 2011 Neptune Township Master Plan Circulation Element, which the planning board reexamined and affirmed through its adoption of the 2023 Master Plan Reexamination Report. The project site connects to the following roadways:

- Route 66: Classified by the Circulation Element as a Major Arterial that is under the NJDOT jurisdiction. Major arterials function as high-volume roadways that link various destinations in the township and neighboring municipalities. Route 66 has a general east-west orientation and provides one travel lane in each direction. The posted speed limit is 50 miles per hour (mph).
- Green Grove Road: A township roadway classified by the Circulation Element as a Collector Road. The roadway has a general north-south orientation and provides one travel lane in each direction. The posted speed limit is 25 mph.

The project does not propose new streets on or around the project site. As previously indicated, the proposed right-in/right-out driveway configuration along Route 66 is consistent with the NJDOT Route 66, Section 1 project that includes future widening across the site frontage.

2.3 Circulation Element Consistency

The project is consistent with the following Circulation Plan Element goals and objectives:

- #1. *Foster convenient, efficient and safe movement of people and goods within and throughout the Township as well as to destinations outside the community*. According to the Traffic Impact Study, the project will generate less than 100 new trips when compared to the former office use and does not generate a "significant increase in traffic" as defined by the NJDOT.

- #2. *Provide appropriate access to the different uses of land and improve economic activities for residents.* The project design allows for efficient access to jobs and commerce, redeveloping a vacant office site consistent with the redevelopment plan applicable to the project site.
- #3. *Encourage pedestrian friendly communities*. The project includes pedestrian connections along Green Grove Road and to the project site, including access to the municipal recreation facility.
- #5. *Strongly encourage that adequate parking and loading is provided for residential and non-residential uses in accordance with the intent of the zoning district and general welfare.* The project provides adequate parking to serve the uses at the site.

The project design furthers the Circulation Plan Element goals and objectives while redeveloping an inactive site consistent with the intent and purpose of the Route 66 Redevelopment Plan.

2.4 Internal Circulation

Internal circulation on the site places emphasis on separating the warehouse use (Block 3903, proposed Lot 12.01) from the retail (Block 3903 proposed Lot 13.01) and recreational uses. (Block 3903 proposed Lot 13.01). To create more efficient circulation, the warehouse would have one dedicated internal roadway for its exclusive use, surrounding the entire building, and providing access to parking and loading areas.

The warehouse road would have a right-in/right-out access at State Route 66, with the intention of separating warehouse traffic, especially trucks, from other circulation uses in the surrounding parcels. A right in/right out stop controlled road would connect to this one, with primary access to the east on State Route 66, intended to provide connection for cars to the retail use as well as to the park. This internal roadway would connect to Green Grove Road via one stop-controlled driveway, which would provide full ingress and right-out only egress.

The project includes new sidewalks between the recreational land use and the Green Grove Road access. The roadway design between Green Grove and the retail and park uses, with its angles, is not suitable for truck turning or similar large vehicles. Trucks would use the warehouse road, resulting in safer and more efficient circulation across the site for all users.

2.5 Safety for Pedestrians, Bicyclists, and the Public

The project proposes new sidewalks as part of the Green Grove Road internal connection road, and along Green Grove Road, providing separation and safer circulation for pedestrians. The proposed design would encourage bicyclists to approach the park or the retail uses from Green Grove Road. Green Grove Road has a 25 mile per hour speed limit in contrast to the higher speeds on State Route 66. Bicyclists would also benefit from the slower flow of traffic and pedestrian improvements proposed at the Green Grove Road connection. The proposed project would have a positive impact on pedestrians, bicyclists, and the traveling public.

2.6 Street and Pedestrian Connectivity

The project would improve connectivity between pedestrian generators and new locations, by adding sidewalks between the existing residential development on the eastern side of Green Grove Road and the proposed park and new retail space, as well as internal sidewalks on site. As discussed in the TIS (Appendix – Traffic Impact Study), the surrounding street system has sufficient capacity to manage traffic generated by the project, and the project would not impair connectivity. The project does not impact greenways or similar uses since none are within a 1-mile radius of the project site.

3.0 TRAFFIC IMPACT REPORT

Per § 811.B.2 of the LDO, the circulation impact study requires a traffic impact report addressing the following traffic-related issues. The following sections summarize the submitted TIS. More substantial details are in the TIS (Appendix – Traffic Impact Study).

- Project Phasing, Access, and Connections: The "Introduction" section of the TIS addresses project access and connections.

- Existing Conditions Analysis: As discussed in the "Study Area" section the TIS includes capacity analyses of the following intersections:
    - NJ Route 66 and Green Grove Road
    - NJ Route 66 and Wawa Driveway / Site Driveway West
    - NJ Route 66 and Holiday Inn Driveway / Site Driveway East
    - Green Grove Road and Site Driveway North
    - Green Grove Road and Site Driveway South

The studied intersections represent those close and adjacent to the project site. The TIS "Description of Existing Conditions" section provides an in-depth discussion of the study area's roadway facilities including lanes, functional classification, condition, location, type of traffic signals and location of other traffic control devices.

The nearest public bus stop is an approximately one mile walk from the project site. This stop is the New Jersey Transit Neptune Wal-Mart stop. NJ Transit Bus 836 serves the Wal-Mart bus stop.

The project site has no school bus stops since the site neither includes nor will it include residential uses. No pedestrian or bicycle facilities currently serve the site. The nearest sidewalk runs along the far side of Green Grove Road across the street from the project site. The closest crosswalk is along the Green Grove Road- Route 66 intersection and does not have sidewalk connectivity.

The TIS "Traffic Volumes" and "Capacity Analyses" sections include traffic volume, traffic counts, and volume/capacity analysis assessing existing conditions.

- Site Traffic Characteristics. The TIS indicates that the proposed redevelopment with the recommended improvements will not significantly impact traffic operations in the study area during peak hours when compared to the operations of the existing office development at full occupancy. Based on a review of the peak hour traffic generation, the TIS concludes that the proposed redevelopment will generate a decrease of 96 trips entering and exiting the driveway during the weekday morning peak hour and an increase of 42 trips during the weekday evening peak hour as compared to the previously occupied office development.

  The redevelopment will generate fewer than 100 new trips when compared to the former use, and therefore does not generate a "significant increase in traffic" as defined by the New Jersey Department of Transportation (NJDOT). The TIS "Estimate of Future Conditions" section provides an in-depth analysis of traffic generation by the proposed project and projections of non-site related and all traffic.

- Impact Analysis and Recommendations. The TIS "Capacity Analyses" section discusses levels of service (LOS) for the study area under build and no-build conditions, indicating that the proposed development would not significantly impact traffic operations in the area during peak hours.

- Site Plan Analysis. Two right-in/right-out, stop-controlled driveways along Route 66, with alternative access on Green Grove Road via one stop-controlled driveway, provide full ingress and right-out only egress at the project site. The westernmost driveway along Route 66 will serve as the primary truck access for the warehouse. The proposed right-in/right-out driveway configuration along Route 66 is consistent with the New Jersey Department of Transportation (NJDOT) Route 66, Section 1 project that includes future widening across the site frontage. Site parking and loading, as discussed on page two of this memo, complies with redevelopment plan standards.

  The project design enhances circulation, addressing internal and external circulation safety issues. It would enhance bicycle access and pedestrian circulation to the proposed park, and separate transportation modes that are not complementary. The project circulation design is consistent with the goals and objectives of the Neptune Master Plan Circulation Element

4.0 REFERENCES

Site Plan, prepared by Langan, last dated May 1, 2024.

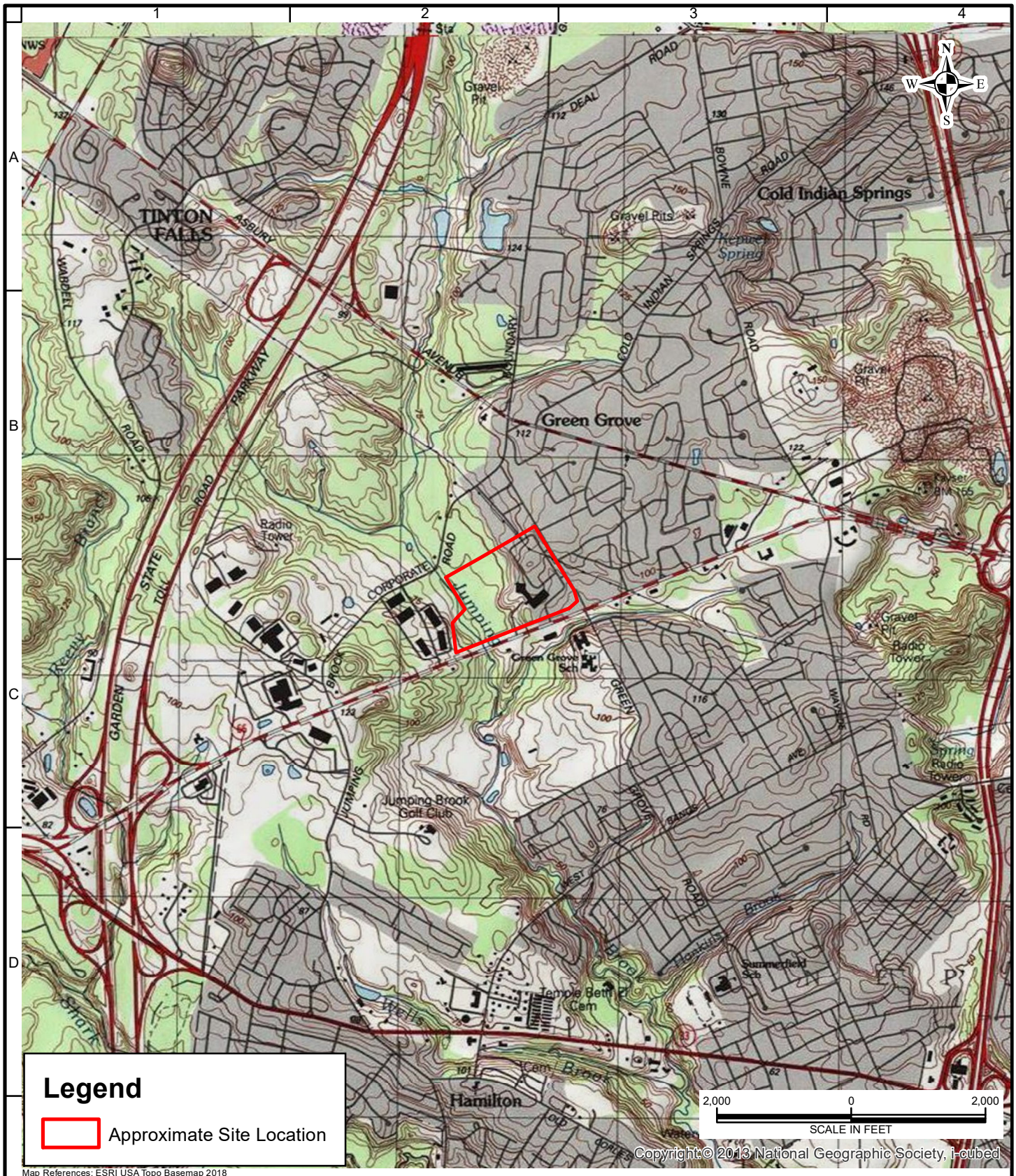
Redevelopment Agreement and Exhibits, May 3, 2023

Township of Neptune 2023 Master Plan Re-Examination Report, Adopted April 26, 2023

2011 Neptune Township Master Plan Circulation Element, carried forward to 2023 Master Plan Re-examination Report, Adopted April 26, 2023

NJ Transit Trip Planner: Service Near a Location, accessed May 1, 2024, https://www.njtransit.com/trip-planner-to

FIGURES



Map References: ESRI USA Topo Basemap 2018

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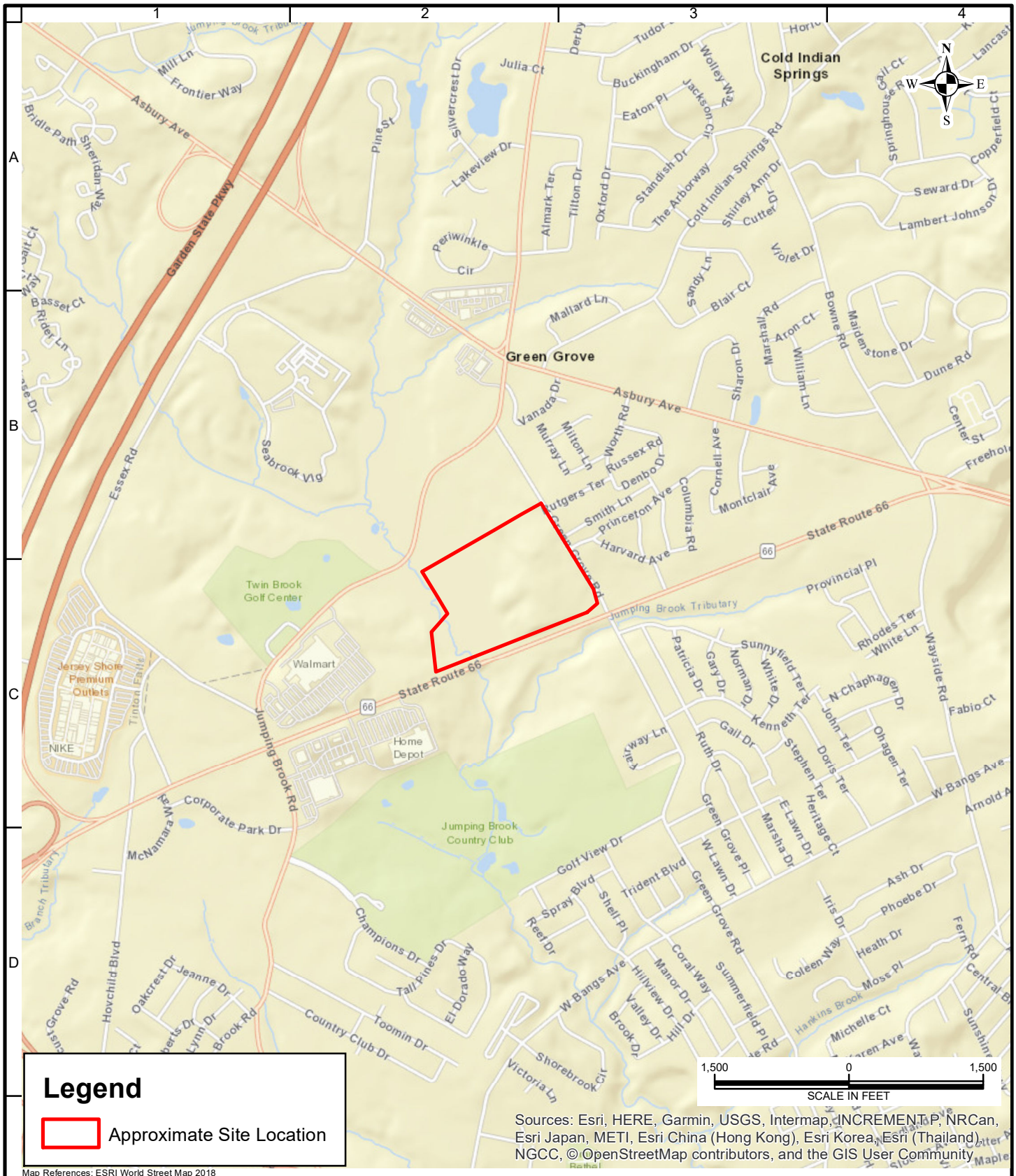
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project	3501 ROUTE 66 BLOCK No. 3903, LOT Nos. 12 & 13 NEPTUNE MONMOUTH COUNTY NEW JERSEY
Drawing Title	USGS SITE LOCATION MAP
Project No.	100775001
Date	12/11/2018
Scale	1" = 2,000'
Drawn By	MAD
Figure	1

Path: \\langan.com\data\PAR\data0\100775001\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 1 - USGS Site Location Map.mxd



LANGAN 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan International LLC Collectively known as Langan NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400	Project 3501 ROUTE 66 BLOCK No. 3903, LOT Nos. 12 & 13 NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title VICINITY MAP	Project No. 100775001 Date 12/11/2018 Scale 1" = 1,500' Drawn By MAD	Figure 2

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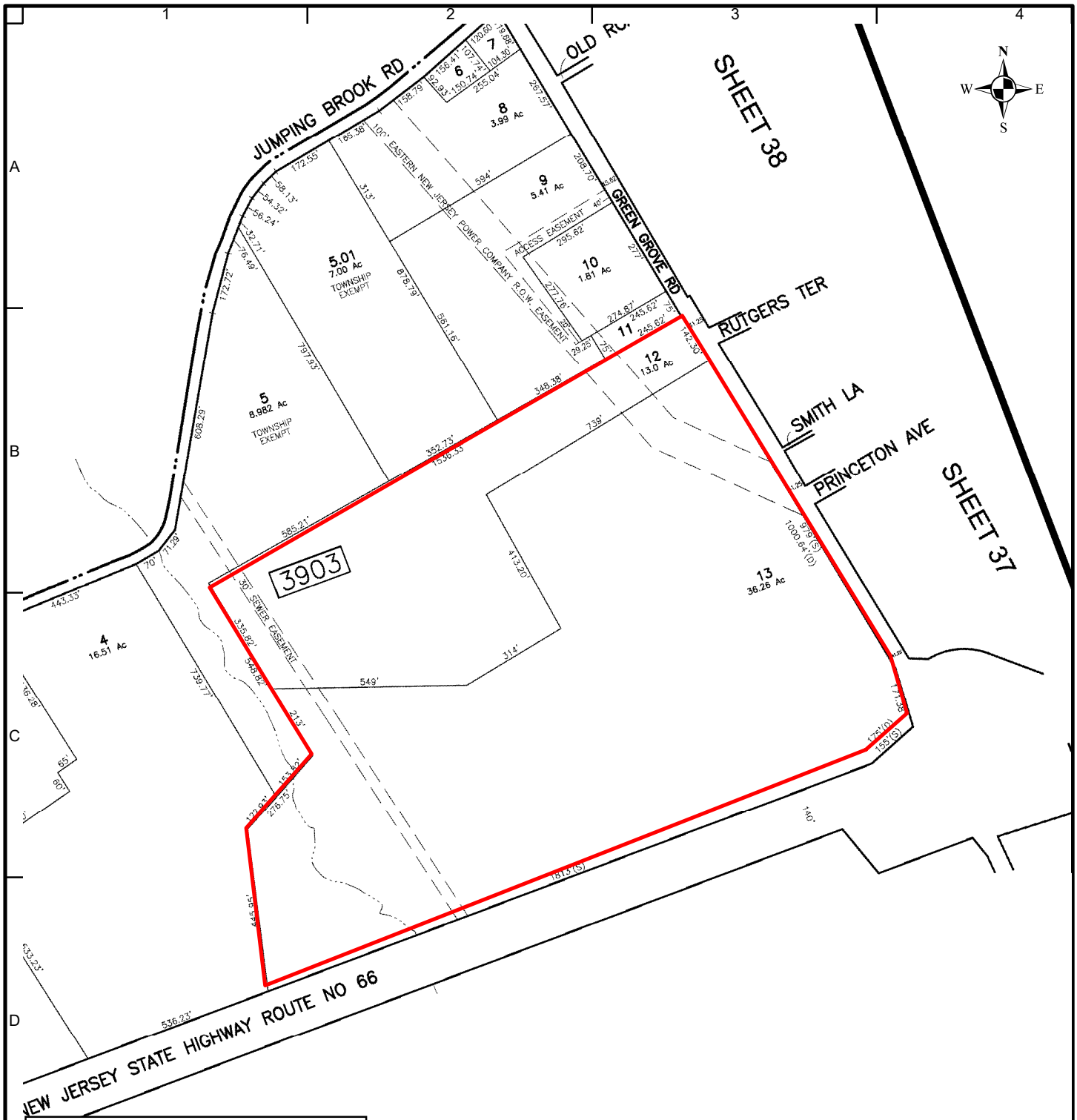

Legend

Approximate Site Location

400 0 400

SCALE IN FEET

Map References: Tax Map Township of Neptune, Robert R. Heggan, December 2013, revised 11/2014

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Figure	3

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Map References: NJDEP Aerial Imagery 2015

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

3501 ROUTE 66

BLOCK No. 3903, LOT Nos. 12 & 13

NEPTUNE

MONMOUTH COUNTY NEW JERSEY

Drawing Title

SITE AERIAL PHOTOGRAPH

Project No. 100775001	Figure 4
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APPENDIX:

TRAFFIC IMPACT STUDY

LANGAN

TRAFFIC IMPACT STUDY

For

3501 Route 66 Neptune Redevelopment
Township of Neptune
Monmouth County, New Jersey

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1 June 2023
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EXECUTIVE SUMMARY

Langan Engineering and Environmental Services prepared a traffic impact study for the proposed redevelopment of 3501 Route 66, in the Township of Neptune, Monmouth County, New Jersey. The redevelopment, upon completion, will consist of a 251,000 square foot (sf) warehouse building and 15,000 sf of retail space replacing the existing 114,000 sf office development.

The redevelopment is bounded by Green Grove Road to the east, undeveloped land to the west, existing commercial uses to the north, and Route 66 to the south. Existing access to the site is via two full-access, stop-controlled driveways along Route 66 and two full-access, stop-controlled driveways along Green Grove Road.

As part of the redevelopment, the existing office development will be demolished along with the on-site parking. Access to the redevelopment is proposed to be provided via two right-in/right-out, stop-controlled driveways along Route 66, with alternative access on Green Grove Road via one stop-controlled driveway, which would provide full ingress and right-out only egress. The westernmost driveway along Route 66 will be the primary truck access for the warehouse portion of the redevelopment. Note that the right-in/right-out driveway configuration along Route 66 are consistent with the NJDOT Route 66, Section 1 project that includes future widening across the site frontage.

Langan estimated the number of trips the proposed redevelopment would generate based on data compiled for Land Use Code 150 (Warehousing) and Land Use Code 820 (Shopping Center) as contained in the NJDOT HAPS program. Additionally, for the warehouse land use, ITE provides truck trip generation data in the supplement to the Trip Generation publication. Note that ITE has published new data for retail uses in the publication Trip Generation, 11th Edition, which has yet to be implemented within the NJDOT HAPS program. We conservatively utilized the trip generation estimates from the NJDOT HAPS program because access is proposed along Route 66 and will require NJDOT review and permitting. Langan estimated that the redevelopment will generate approximately 72 new trips (46 enter, 26 exit) during the weekday morning peak hour and 155 new trips (61 enter, 94 exit) during the weekday evening peak hour.

Based on a review of the peak hour traffic generation, we conclude that, in general, the proposed redevelopment will generate a decrease of 96 trips entering and exiting the driveway during the weekday morning peak hour and an increase of 42 trips during the weekday evening peak hour as compared to the previously occupied office development. Therefore, the surrounding roadway network at one point consisted of volumes similar to what the proposed redevelopment is anticipated to generate.

We determined the directional distribution of the site-generated trips based on existing and expected travel patterns in the study area, a gravity model, and a journey-to-work model (included in Appendix B). We conducted capacity analyses at the following intersections:

- NJ Route 66 and Green Grove Road
- NJ Route 66 and WaWa Driveway / Site Driveway West
- NJ Route 66 and Holiday Inn Driveway / Site Driveway East
- Green Grove Road and Site Driveway North
- Green Grove Road and Site Driveway South

The analyses show that the proposed redevelopment with the recommended improvements will not significantly impact traffic operations in the study area during peak hours when compared to the operations of the existing office development at full occupancy. Based on a review of the peak hour traffic generation, we conclude that, in general, the proposed redevelopment will generate a decrease of 96 trips entering and exiting the driveway during the weekday morning peak hour and an increase of 42 trips during the weekday evening peak hour as compared to the previously occupied office development. The redevelopment will generate less than 100 new trips when compared to the former use, and therefore does not generate a "significant increase in traffic" as defined by the New Jersey Department of Transportation.

Moreover, the proposed driveways are expected to operate acceptably during the peak hours. The proposed driveways along NJ Route 66 will require a NJDOT Major Access Permit application.

INTRODUCTION

Langan Engineering and Environmental Services prepared a traffic impact study for the proposed redevelopment of 3501 Route 66, in the Township of Neptune, Monmouth County, New Jersey. The redevelopment, upon completion, will consist of a 251,000 square foot (sf) warehouse building and 15,000 sf of retail space replacing the existing 114,000 sf office development.

Project Description

The proposed redevelopment will consist of a 251,000 square foot (sf) warehouse building and 15,000 sf of retail space. The redevelopment is designated as Block 3903, Lots 12 and 13, according to Township of Neptune tax maps. Figure 1 shows the location of the site.

The redevelopment is bounded by Green Grove Road to the east, undeveloped land to the west, existing commercial uses to the north, and Route 66 to the south. Existing access to the site is via two full-access, stop-controlled driveways along Route 66 and two full-access, stop-controlled driveways along Green Grove Road.

As part of the redevelopment, the existing office development will be demolished along with the on-site parking. Access to the redevelopment is proposed to be provided via two right-in/right-out, stop-controlled driveways along Route 66, with alternative access on Green Grove Road via one stop-controlled driveway, which would provide full ingress and right-out only egress. The westernmost driveway along Route 66 will be the primary truck access for the warehouse portion of the redevelopment. Note that the right-in/right-out driveway configuration along Route 66 are consistent with the NJDOT Route 66, Section 1 project that includes future widening across the site frontage.

Study Area

We conducted capacity analyses at the following intersections:

- NJ Route 66 and Green Grove Road
- NJ Route 66 and WaWa Driveway / Site Driveway West
- NJ Route 66 and Holiday Inn Driveway / Site Driveway East
- Green Grove Road and Site Driveway North
- Green Grove Road and Site Driveway South

An inventory of the physical road conditions is presented in the section "Description of Existing Conditions".

Scope of Study

Langan undertook the following steps to prepare this study in accordance with standard accepted methodologies:

1. Conducted a field examination of the development and surrounding road network to inventory physical and regulatory conditions including the number of lanes, lane assignments, channelization, traffic-control devices, lateral clearances and other factors that limit traffic capacity.
2. Conducted a series of turning movement traffic counts at the study intersections identified in the previous section. Note that the counts were conducted when schools were open for in-person learning. We conducted counts on a typical weekday from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. We then identified existing weekday morning and evening peak hour traffic volumes based on the traffic count data.
3. Established "2022 Existing" traffic volumes using the turning movement traffic count data. Note that the Holiday Inn was open and operating at the time of the traffic counts, therefore the trips associated with full-occupancy were only assigned to the adjacent development driveways as the associated trips would have been included in the traffic counts at the study intersections.
4. Established 2025 Base traffic volumes by applying the New Jersey Department of Transportation (NJDOT) Monmouth County growth factor of 1.0 percent per year to the existing traffic volumes.
5. Established 2025 No-Build traffic volumes by adding the total trips associated with the reoccupancy of the existing office development to the 2025 Base traffic volumes.
6. Prepared trip generation estimates for the proposed redevelopment based on accepted trip rates developed by the Institute of Transportation Engineers (ITE).
7. Developed trip distribution based on existing and expected travel patterns, a gravity model, and a journey-to-work model.
8. Assigned site-generated trips to the redevelopment access and surrounding road network based on the likely travel routes motorists will use to travel to and from the site.
9. Established future 2025 Build traffic volumes by adding site-generated trips to the 2025 Base traffic volumes.
10. Performed intersection capacity analyses for the weekday morning and evening peak hours using Synchro software.

DESCRIPTION OF EXISTING CONDITIONS

This section describes the roads and traffic volumes in the area of the proposed mixed-use redevelopment located in the Township of Neptune, Monmouth County, New Jersey.

Roads

NJ Route 66

NJ Route 66 is classified as an urban principal arterial and is under the New Jersey Department of Transportation jurisdiction. The roadway has a general east-west orientation and provides one travel lane in each direction. The posted speed limit is 50 mph.

Green Grove Road

Green Grove Road is classified as an urban major collector and is under the Township of Neptune jurisdiction. The roadway has a general north-south orientation and provides one travel lane in each direction. The posted speed limit is 25 mph.

Intersections

NJ Route 66 and Green Grove Road

Green Grove Road intersects NJ Route 66 to form a four-leg signalized intersection. The eastbound and westbound NJ Route 66 approaches provide one left-turn lane and one shared through/right-turn lane. The northbound Green Grove Road approach provides one left-turn lane and one shared through/right-turn lane. The southbound Green Grove Road approach provides one shared left-turn/through/right-turn lane. Note that southbound approach provides a 24' cartway, which allows vehicles traveling through the intersection and turning right onto NJ Route 66 to by-pass vehicles turning left-turn. For analysis purposes, the southbound approach was analyzed as one left-turn lane and one shared through/right-turn lane.

NJ Route 66 and WaWa Driveway / Site Driveway West

The WaWa driveway intersects NJ Route 66 slightly off-set from the site driveway west, to form a four-leg unsignalized intersection. The eastbound and westbound NJ Route 66 approaches provide one shared left-turn/through/right-turn lane. The northbound WaWa driveway approach provides one right-turn lane that is stop-controlled. Note that the WaWa driveway is signed to prohibit left-turns out, however, the turning movement counts conducted at the study intersection show that vehicles are utilizing the site driveway for left-turns out. We conservatively analyzed the driveway approach as a full-movement driveway. The site driveway west approach provides one shared left-turn/right-turn lane and is stop-controlled.

NJ Route 66 and Holiday Inn Driveway / Site Driveway East

The Holiday Inn driveway intersects NJ Route 66 slightly off-set from the site driveway east, to form a four-leg unsignalized intersection. The eastbound and westbound NJ Route 66 approaches provide one shared left-turn/through/right-turn lane. The northbound Holiday Inn driveway approach provides one shared left-turn/right-turn lane that is stop-controlled. The site driveway east approach provides one shared left-turn/right-turn lane and is stop-controlled.

Green Grove Road and Site Driveway North

The site driveway north intersects Green Grove Road to form a T-shaped unsignalized intersection. The eastbound site driveway north approach provides one shared left-turn/right-turn lane and is stop-controlled. The northbound Green Grove Road approach provides one shared left-turn/through lane. The southbound Green Grove Road approach provides one shared through/right-turn lane.

Green Grove Road and Site Driveway South

The site driveway south intersects Green Grove Road to form a T-shaped unsignalized intersection. The eastbound site driveway south approach provides one shared left-turn/right-turn lane and is stop-controlled. The northbound Green Grove Road approach provides one shared left-turn/through lane. The southbound Green Grove Road approach provides one shared through/right-turn lane.

Traffic Volumes

Langan arranged turning movement traffic counts to be conducted during the morning and evening peak hours on a typical weekday at the study intersections. Note that the counts were conducted on a day when schools were open for in-person learning. Specifically, turning movement traffic counts were conducted on Wednesday, June 15, 2022, from 6:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM. Additionally, Automatic Traffic Recorder (ATR) counts were performed along both sides of NJ Route 66 and Green Grove Road from Tuesday, June 14, 2022, to Wednesday, June 22, 2022.

The traffic counts identify distinct times during the weekday morning and evening hours when traffic experienced its highest levels. According to the traffic count data collected, the weekday morning peak hour occurred from 8:00 AM to 9:00 AM and the weekday evening peak hour occurred from 4:00 PM to 5:00 PM.

In addition, the existing Holiday Inn was open and operating at the time of the 2022 traffic counts. Traffic associated with the existing Holiday Inn was estimated based on data compiled for Land

Use Code 310 (Hotel) by the Institute of Transportation Engineers (ITE) as contained in the publication Trip Generation, 11th Edition. Note that the Holiday Inn site-generated trips were only assigned to the adjacent driveways as the associated trips would have been included in the traffic counts at the study intersections.

Figure 2 illustrates the 2022 Existing weekday morning and evening peak hour traffic volumes. Summaries of the manual traffic counts are contained in Appendix C.

ESTIMATE OF FUTURE CONDITIONS

This section of the report covers background traffic growth, re-occupancy, site-generated trips, trip distribution, and future traffic volumes. We anticipate the proposed redevelopment will be complete by the end of 2025. Accordingly, we projected traffic volumes to include existing traffic and new traffic created by background growth to derive the 2025 Base traffic volumes. We estimated site-generated trips for the existing office development and added the trips to the Base traffic volumes to derive the 2025 No-Build. We then added the redevelopment's site-generated trips to the 2025 Base volumes to derive the 2025 Build traffic volumes.

Background Traffic Growth

In order to derive the 2025 Base traffic volumes we increased the existing traffic volumes by a compounded annual growth rate of 1.0 percent and 2.5 percent established by the New Jersey Department of Transportation (NJDOT) for Monmouth County for short-term growth projections for urban principal arterials and urban major collectors, respectively. Figure 3 shows the 2025 Base traffic volumes.

No-Build Condition

The site is currently developed with approximately 114,000 square feet (sf) of office space. Existing access to the site is via two full-access, stop-controlled driveways along Route 66 and two full-access, stop-controlled driveways along Green Grove Road. We prepared trip generation estimates for the existing development using data compiled for Land Use Code Y52 (General Office Building (<200,000 sf)) as contained in the NJDOT HAPS program and by the Institute of Transportation Engineers (ITE) as contained in the publication Trip Generation, 11th Edition. Table 1 summarizes the trip generation for the reoccupied existing office development.

Table 1 – Existing Office Trip Generation Estimates

Use	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
114,000 sf Office Space	148	20	168	28	134	162

Figure 4 shows the traffic associated with the reoccupied existing office development. We derived the 2025 No-Build traffic volume by adding the reoccupied building trips to the 2025 Base traffic volumes, Figure 3. Figure 5 illustrates the 2025 No-Build traffic volumes.

Site-Generated Trips

We prepared trip generation estimates for the proposed redevelopment using data compiled for Land Use Code 150 (Warehousing) and Land Use Code 820 (Shopping Center) as contained in

the NJDOT HAPS program. Additionally, for the warehouse land use, ITE provides truck trip generation data in the supplement to the Trip Generation publication. Note that ITE has published new data for retail uses in the publication Trip Generation, 11th Edition, which has yet to be implemented within the NJDOT HAPS program. We conservatively utilized the trip generation estimates from the NJDOT HAPS program because access is proposed along Route 66 and will require NJDOT review and permitting.

Additionally, a certain percentage of traffic attracted to retail land uses generally relates to the volume of traffic passing by a site. These trips are diverted into a site from the adjacent passing travel stream and continue along their original trip path when exiting a site. These specific trips are known as "pass-by" trips and are not new to an area or the immediate adjacent roadway system. We use the pass-by percentages in accordance with the "Pass-By Rates Approved for Use in Traffic Analysis for Major Access Permits" by NJDOT. We calculated pass-by percentages of 0% for the weekday morning peak hour and 34% for the weekday evening peak hour for the retail portion of the proposed mixed-use redevelopment.

Table 2 summarizes the trip generation estimates for the redevelopment.

Table 2 – Trip Generation Estimate

Use		Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
251,000 sf Warehouse	Passenger Vehicle	35	18	53	12	40	52
	Truck*	3	2	5	4	4	8
15,000 sf Retail Space		8	6	14	69	75	144
Total Trips		**46**	**26**	**72**	**85**	**119**	**204**
Retail Pass-By Trips		-	-	-	- 24	- 25	- 49
Total New Trips		**46**	**26**	**72**	**61**	**94**	**155**

*Truck peak hour rates from the ITE Supplement – 0.02 AM peak hour and 0.03 PM peak hour

Trip Generation Comparison

We compared the peak-hour trip generation of the previously occupied 114,000 sf office development to the proposed redevelopment. Table 3 summarizes the trip generation comparison.

Table 3 – Trip Generation Comparison

Use	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
114,000 sf Office Space	148	20	168	28	134	162
Proposed Redevelopment	46	26	72	85	119	204
Difference	**- 102**	**+ 6**	**- 96**	**+ 57**	**- 15**	**+ 42**

Based on a review of the peak hour traffic generation, we conclude that, in general, the proposed redevelopment will generate a decrease of 96 trips entering and exiting the driveway during the weekday morning peak hour and an increase of 42 trips during the weekday evening peak hour as compared to the previously occupied office development. The redevelopment will generate less than 100 new trips when compared to the former use, and therefore does not generate a "significant increase in traffic" as defined by ITE and the New Jersey Department of Transportation.

Trip Distribution

We determined the distribution of site-generated trips based on a journey-to-work model and a gravity model, included in Appendix B.

To estimate the trip distribution of the warehouse and office uses, we developed a journey-to-work model based on Census data for employees of Monmouth County Census Tract 8079. To estimate the trip distribution of the retail use, we developed a gravity model using a 5-mile radius around the site.

We used the results of the journey-to-work and gravity models to assign the trips onto the adjacent roadway network for the uses of the redevelopment. Table 4 outlines the resulting trip distribution near the development.

Table 4 – Arrival and Departure Trip Distributions

Direction (To/From)	Arrival and Departure Distributions				
	Warehouse			Retail	
	Passenger Vehicles		Trucks	Arrival	Departure
	Arrival	Departure			
NJ Route 66 (East)	19%	19%	50%	35%	35%
NJ Route 66 (West)	44%	74%	50%	5%	37%
Green Grove Road (North)	30%	-	-	32%	-
Green Grove Road (South)	7%	7%	-	28%	28%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

We then applied the site-generated traffic to the adjacent roadway system per the above distributions. Figure 6 shows the retail pass-by distributions. Figures 7 - 9 show the arrival and departure distributions for the warehouse passenger cars, warehouse trucks, and retail use, respectively. Figure 10 shows the retail pass-by trips. Figures 11 - 13 show the new site-generated trips for the warehouse passenger cars, warehouse trucks, and retail use, respectively. Figure 14 shows the total new-site generated trips and Figure 15 shows the total site-generated trips assigned to the roadway network.

Build Traffic Volumes

We derived the 2025 Build traffic volumes by adding the total site-generated trips, Figure 15, to the 2025 Base traffic volumes in Figure 3. Figure 16 illustrates the 2025 Build weekday morning and evening peak hour traffic volumes for the redevelopment.

ANALYSIS OF TRAFFIC OPERATIONS

This section describes the capacity analysis we conducted to assess traffic operations for the No-Build and Build conditions. Capacity analysis provides an indication of the adequacy of road facilities to serve traffic demand.

Level of Service Criteria

Level of Service (LOS) is the term used to denote different operating conditions that occur on a given road segment under various traffic volume demands. LOS is a qualitative measure that considers a number of factors including road geometry, speed, travel delay and freedom to maneuver. LOS designations range from A to F and provide an index of operational qualities of a road segment or an intersection. LOS A represents the best operating conditions; LOS F represents the worst.

LOS designations are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection. For unsignalized intersections, the analysis considers the operation of all movements that conflict with other movements, such as main-line left turns and traffic exiting a side street. The evaluation criteria used to analyze the study area intersections are based on the Highway Capacity Manual, 7th edition, (HCM), published by the Transportation Research Board and the Synchro and HCS Software.

The HCM defines LOS for signalized intersections as follows:

LOS	Control Delay per Vehicle
A	≤10 sec
B	>10 and ≤20 sec
C	>20 and ≤35 sec
D	>35 and ≤55 sec
E	>55 and ≤80 sec
F	>80 sec

The HCM defines LOS for unsignalized intersections as follows:

LOS	Delay Range (sec/veh)
A	≤10 sec
B	>10 and ≤15 sec
C	>15 and ≤25 sec
D	>25 and ≤35 sec
E	>35 and ≤50 sec
F	>50 sec

Capacity Analyses

We conducted capacity analyses for the intersections in the study area and found that the proposed redevelopment will not significantly impact traffic operations in the area during peak hours. Table 5 summarizes the 2025 No-Build and Build levels of service (LOS) at each study intersection during the weekday morning and evening peak hours. The following are discussions pertaining to each of the intersections analyzed for the project. The capacity analyses worksheets are included in Appendix D.

Table 5 – Intersection Capacity Analysis Summary

Location	Movement		2025 No-Build Condition		2025 Build Condition	
			AM	PM	AM	PM
Signalized Intersections						
NJ Route 66 and Green Grove Road	EB	L	C (24.9)	E (56.9)	C (24.0)	E (58.8)
		T,R	C (32.3)	C (29.5)	C (32.9)	C (26.5)
	WB	L	A (9.4)	A (9.4)	A (9.4)	A (8.3)
		T,R	B (19.0)	C (31.6)	B (18.3)	C (28.9)
	NB	L	D (45.8)	D (46.2)	D (46.3)	D (54.9)
		T,R	D (35.2)	C (30.0)	C (34.0)	C (32.7)
	SB	L	C (24.6)	C (24.5)	C (24.7)	C (27.2)
		T,R	C (21.8)	C (27.3)	C (22.3)	C (30.8)
	Overall		**C (26.7)**	**C (30.9)**	**C (26.7)**	**C (30.1)**
Unsignalized Intersections						
NJ Route 66 and WaWa Driveway / Site Driveway West	EB	L	A (9.1)	B (10.6)	-	-
	WB	L	A (9.8)	A (9.5)	A (9.6)	A (9.5)
	NB	L,R	C (17.5)	D (31.2)	C (16.5)	E (36.4)
	SB	L,R	B (13.6)	F (60.5)	-	-
		R	-	-	B (14.3)	C (21.4)
NJ Route 66 and Holiday Inn Driveway / Site Driveway East	EB	L	A (9.7)	B (10.7)	-	-
	WB	L	A (9.4)	A (9.3)	A (9.4)	A (9.3)
	NB	L,R	D (26.0)	D (30.1)	C (23.1)	D (27.5)
	SB	L,R	B (14.7)	C (21.4)	-	-
		R	-	-	B (14.6)	C (19.7)
Green Grove Road and Site Driveway North	EB	L,R	B (11.3)	B (11.1)	-	-
	NB	L	A (7.8)	A (7.7)	-	-
Green Grove Road and Site Driveway South	EB	L,R	A (9.3)	A (9.7)	-	-
		R	-	-	A (9.4)	A (9.8)
	NB	L	A (7.7)	A (7.7)	A (7.7)	A (7.8)

NJ Route 66 and Green Grove Road

We expect the signalized intersection to operate at an overall LOS C during both the weekday morning and evening peak hours under the No-Build conditions. Under the Build condition, we expect the intersection to continue to operate at an overall LOS C during both the weekday morning and evening peak hours.

We note that the eastbound NJ Route 66 left-turn movement operates with delay, particularly during the weekday evening peak hour. A shift of four seconds from the Green Grove Road ROW phase to the NJ Route 66 ROW phase, would improve operations at the study intersection. With the signal timing adjustment the study intersection will operate at similar LOS as in the No-Build condition.

NJ Route 66 and WaWa Driveway / Site Driveway West

All movements at this stop-controlled intersection are expected to operate at a LOS C or better during the weekday morning peak hour and at a LOS D or better with the exception of the southbound left-turn/right-turn movement, which is expected to operate at LOS F, during the weekday evening peak hour under the No-Build condition.

As part of the redevelopment, the site driveway will be reconstructed to restrict left-turn ingress and egress movements and to provide the proper curb radii and driveway width to accommodate the design vehicle (NJ Title 39) and emergency vehicles. Additionally, the site driveway will be designed to provide adequate sight distance for vehicles turning into and out of the site.

All movements at this stop-controlled intersection are expected to operate at a LOS E or better during both the weekday morning and evening peak hours.

NJ Route 66 and Holiday Inn Driveway / Site Driveway East

All movements at this stop-controlled intersection are expected to operate at a LOS D or better during both the weekday morning and evening peak hours under the No-Build condition.

As part of the redevelopment, the site driveway will be realigned to intersect Route 66 directly across from the Holiday Inn driveway, which will minimize conflict points at the existing offset intersections. The site driveway will be reconstructed to restrict left-turn ingress and egress movements and to provide the proper curb radii and driveway width to accommodate small delivery trucks and emergency vehicles. Additionally, the site driveway will be designed to provide adequate sight distance for vehicles turning into and out of the site.

All movements at this stop-controlled intersection are expected to operate at a LOS D or better during both the weekday morning and evening peak hours.

Green Grove Road and Site Driveway North

All movements at this stop-controlled intersection are expected to operate at a LOS B or better during both the weekday morning and evening peak hours under the No-Build condition. As part of the redevelopment, it is proposed to close the existing driveway.

Green Grove Road and Site Driveway South

All movements at this stop-controlled intersection are expected to operate at a LOS A during both the weekday morning and evening peak hours under the No-Build condition.

As part of the redevelopment, the site driveway will be realigned to intersect Green Grove Road approximately 143' to the south of the existing site driveway. In addition, the site driveway will be signed to restrict left-turn egress movements. The site driveway will provide the proper curb radii and driveway width to accommodate small delivery trucks and emergency vehicles. Additionally, the site driveway will be designed to provide adequate sight distance for vehicles turning into and out of the site

All movements at this proposed stop-controlled intersection are expected to operate at a LOS A during both the weekday morning and evening peak hours under the Build condition

CONCLUSIONS

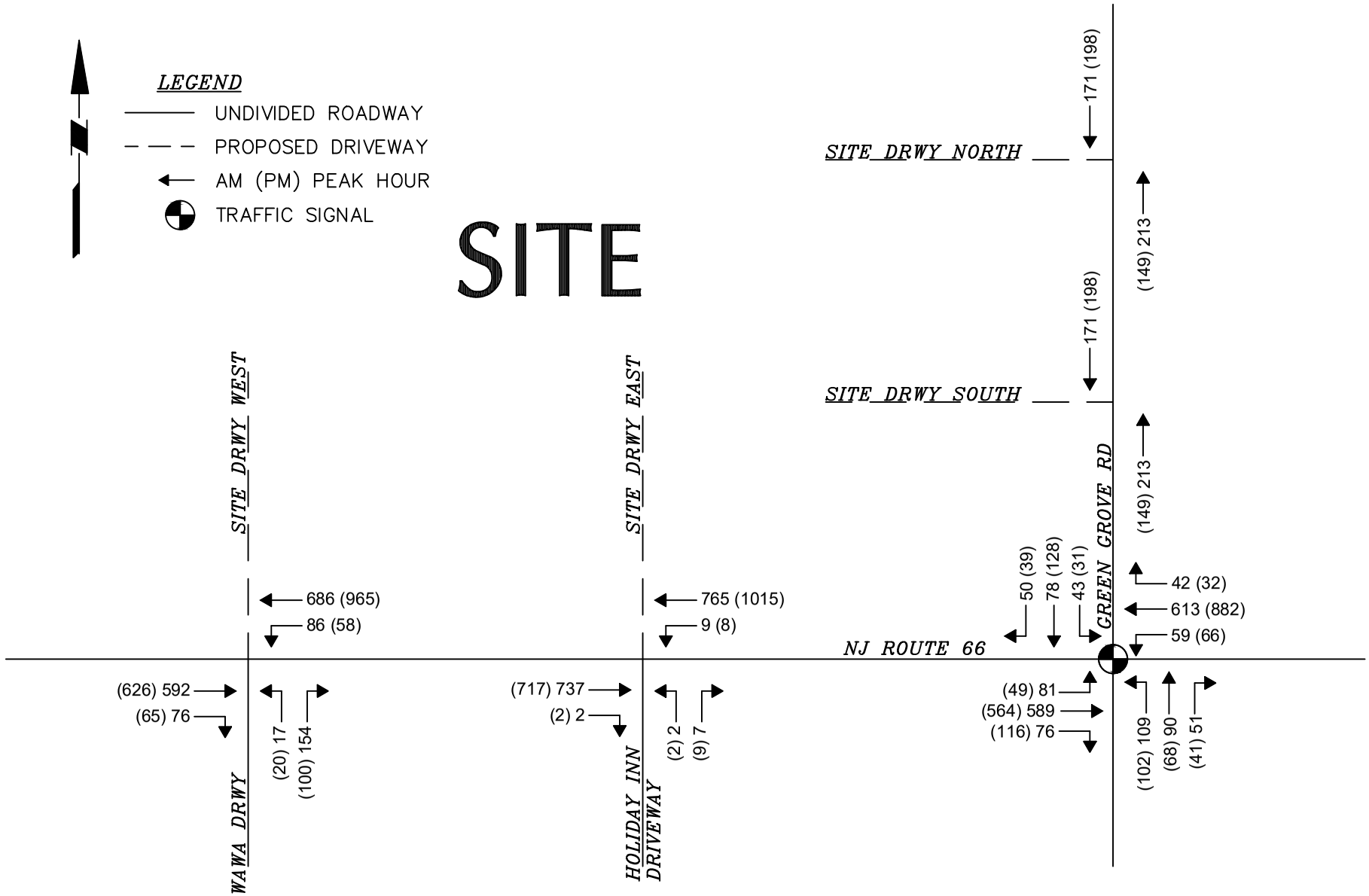
Langan finds that the proposed redevelopment with the recommended improvements will not significantly impact traffic operations in the study area during peak hours when compared to the operations of the existing office development at full occupancy. Based on a review of the peak hour traffic generation, we conclude that, in general, the proposed redevelopment will generate a decrease of 96 trips entering and exiting the driveway during the weekday morning peak hour and an increase of 42 trips during the weekday evening peak hour as compared to the previously occupied office development. The redevelopment will generate less than 100 new trips when compared to the former use, and therefore does not generate a "significant increase in traffic" as defined by the New Jersey Department of Transportation.

Moreover, the proposed driveways are expected to operate at acceptably during the peak hours. The proposed driveways along NJ Route 66 will require a NJDOT Major Access Permit application.

APPENDIX A
FIGURES

LANGAN Langan Engineering and Environmental Services, Inc. 989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project **3501 ROUTE 66 NEPTUNE REDEVELOPMENT** BLOCK No. 3903, LOT Nos. 12 & 13 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title **SITE LOCATION MAP**	Project No. 100775002 Date 05/30/2023 Drawn By EJV Checked By AWL	Figure 1 Sheet 1 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 1-SITE



LANGAN Langan Engineering and Environmental Services, Inc. 989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project **3501 ROUTE 66 NEPTUNE REDEVELOPMENT** BLOCK No. 3903, LOT Nos. 12 & 13 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title **2022 EXISTING TRAFFIC VOLUMES**	Project No. 100775002 Date 05/30/2023 Drawn By EJV Checked By AWL	Figure 2 Sheet 2 of 16

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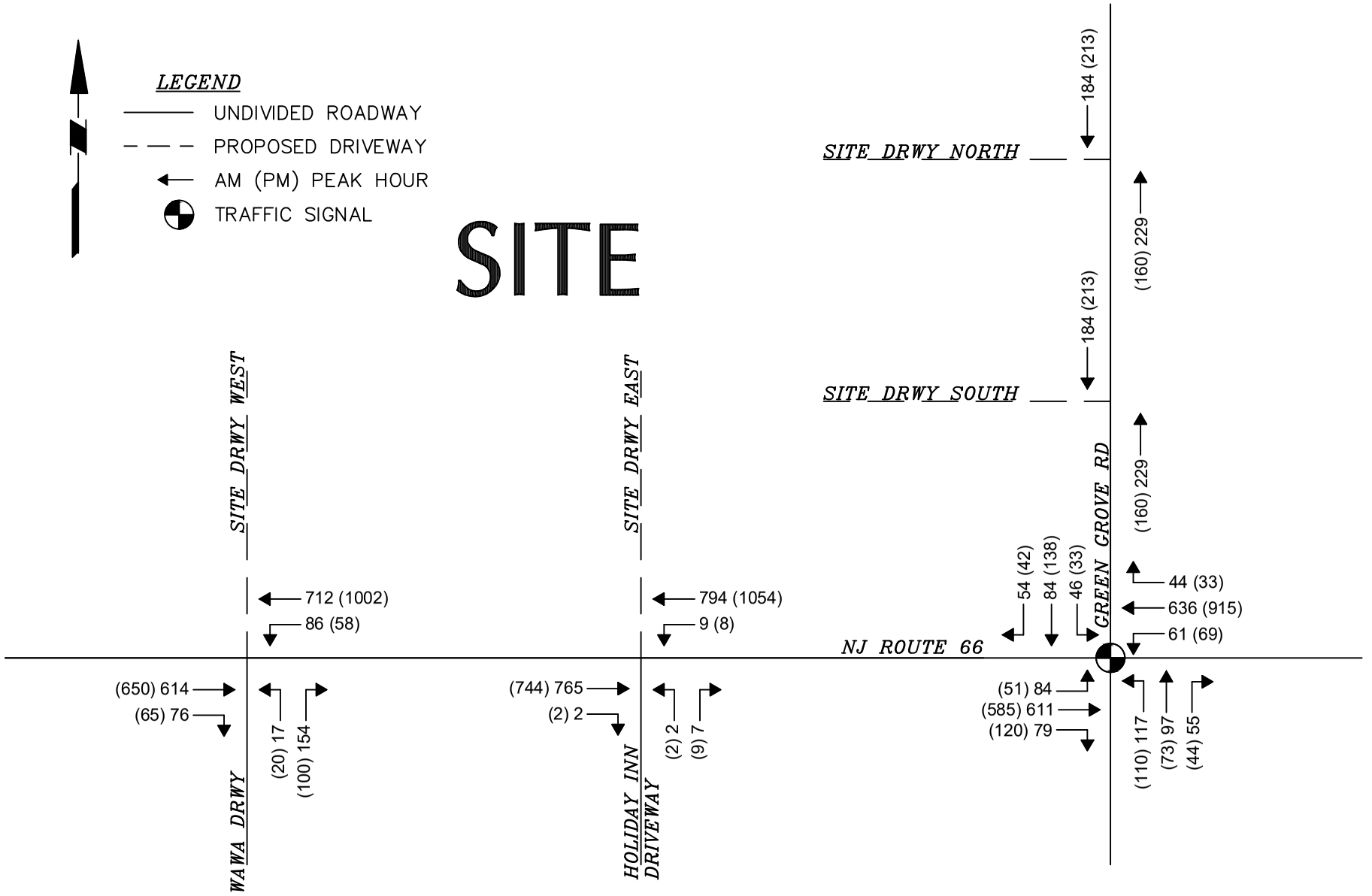

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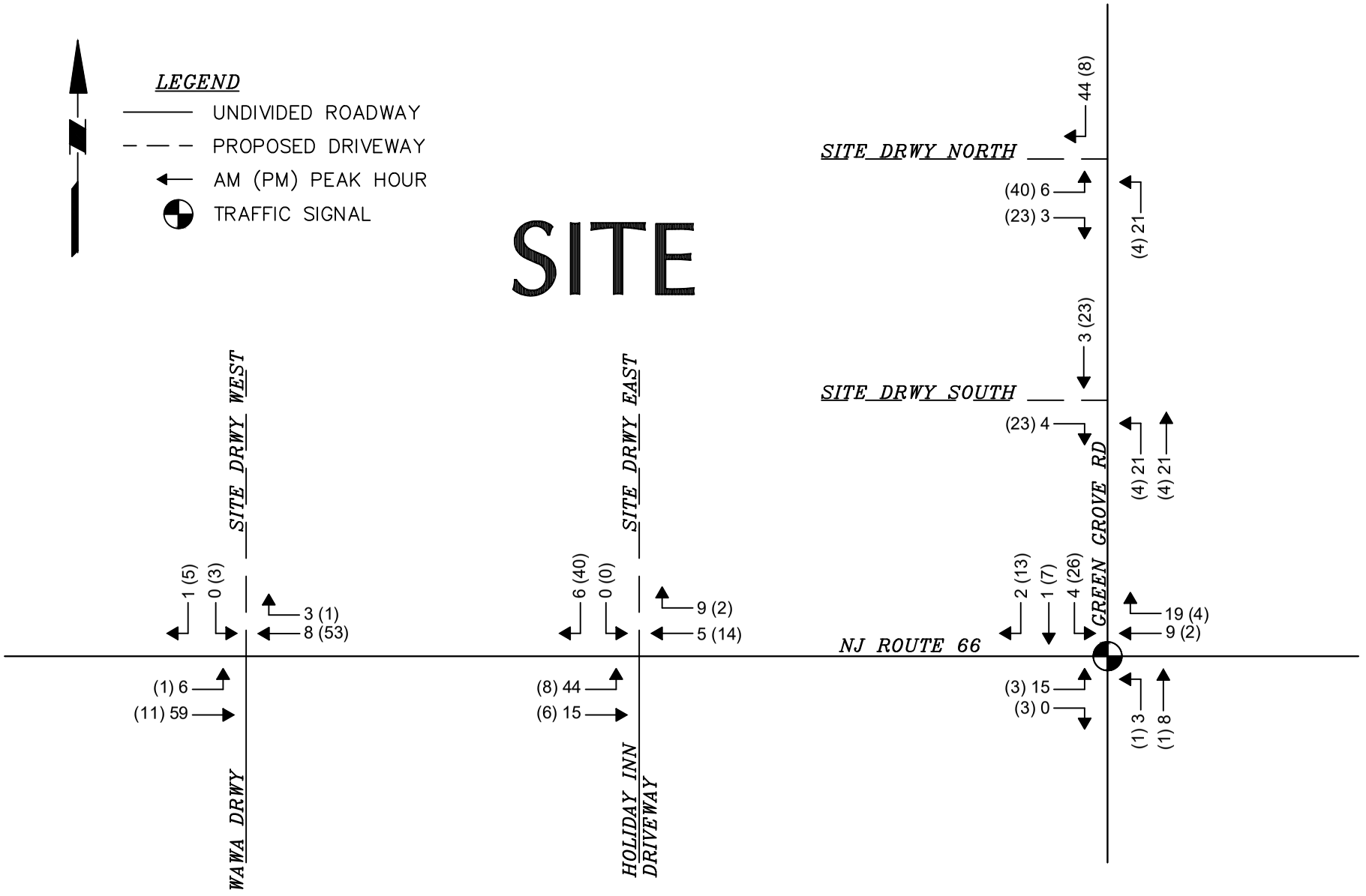

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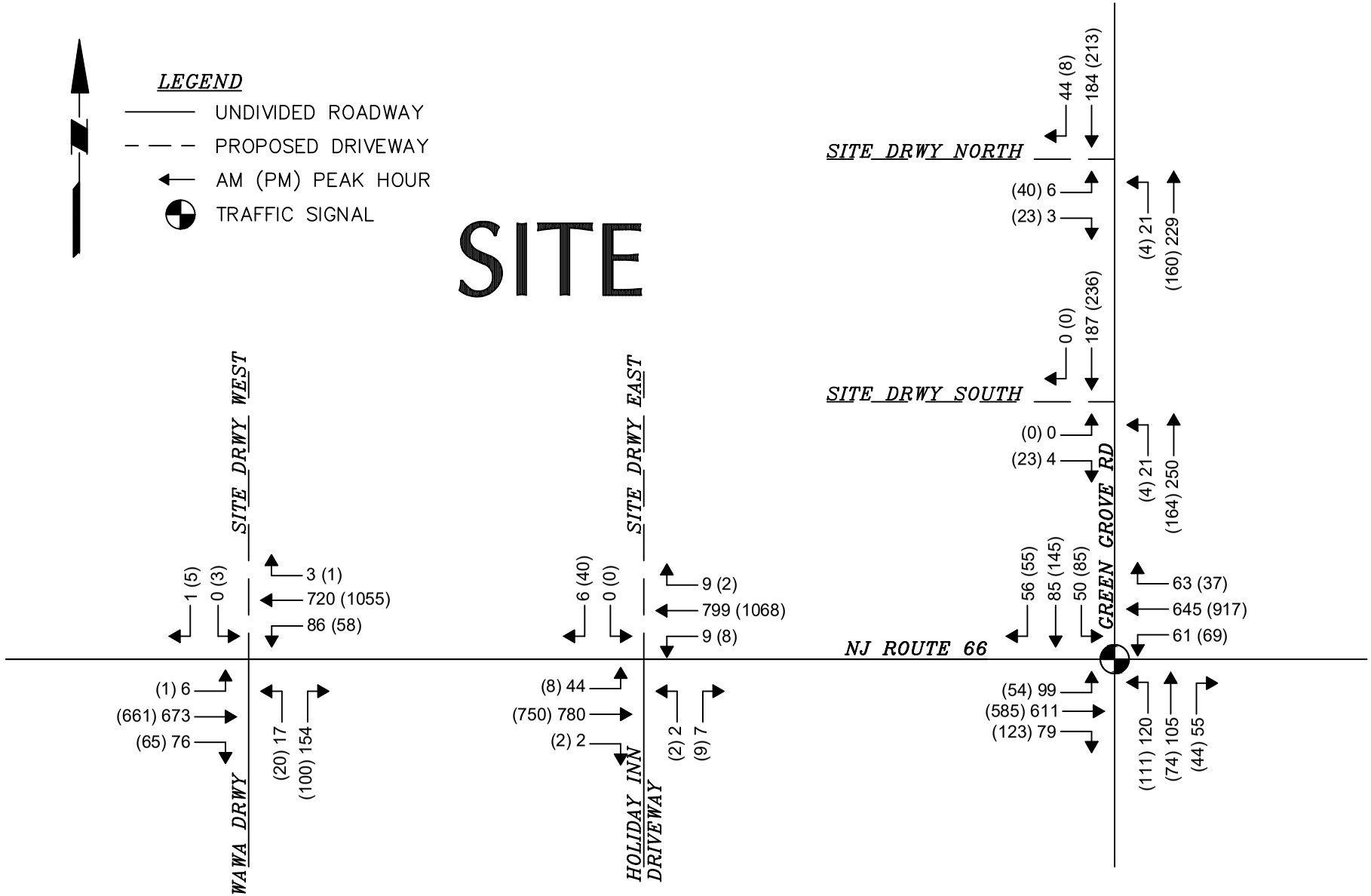

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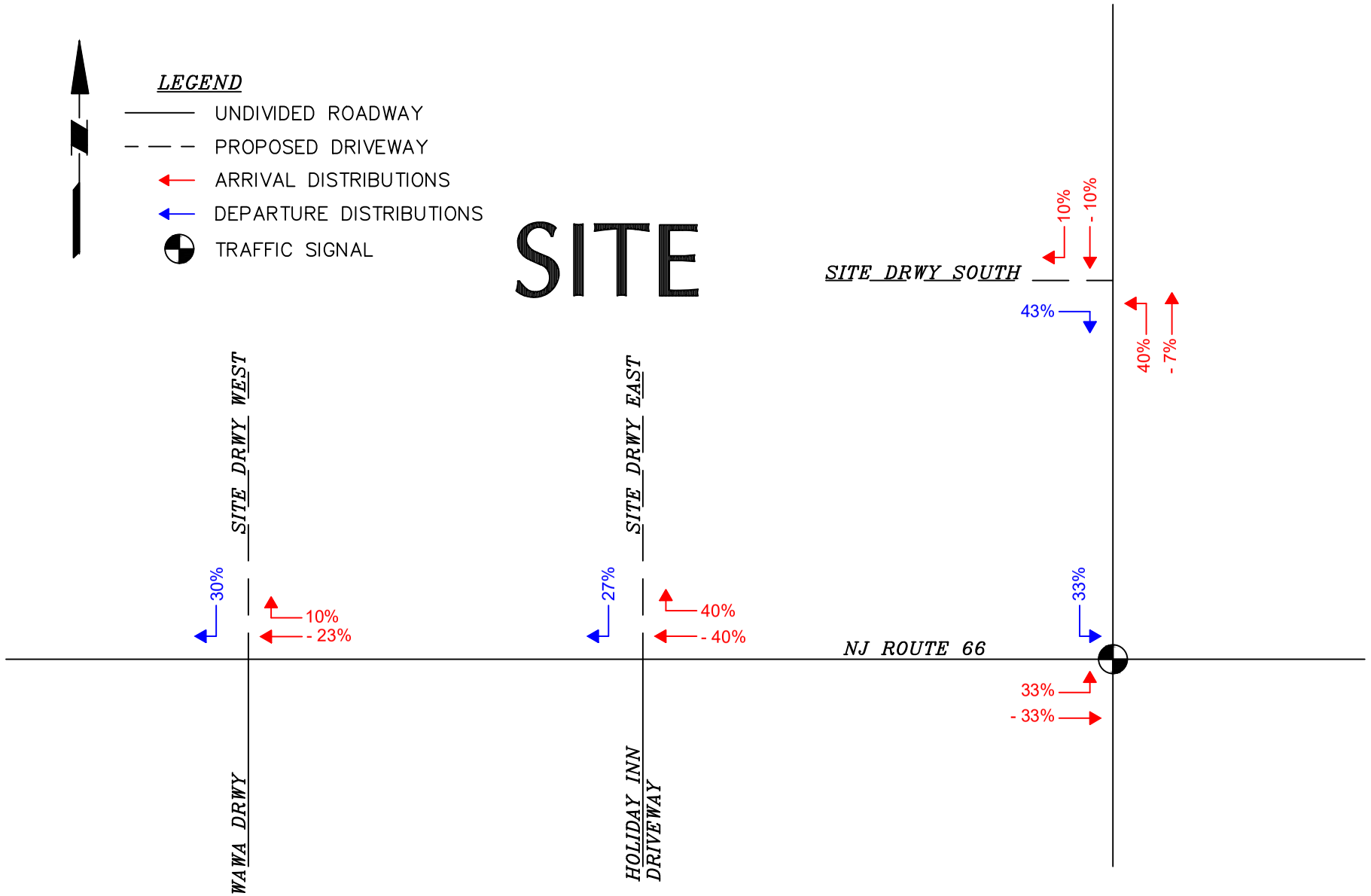

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BLOCK No. 3903, LOT Nos. 12 & 13
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MONMOUTH COUNTY NEW JERSEY

Drawing Title
RETAIL PASS-BY DISTRIBUTIONS

Project No. 100775002
Date 05/30/2023
Drawn By EJV
Checked By AWL

Figure 6

Sheet 6 of 16

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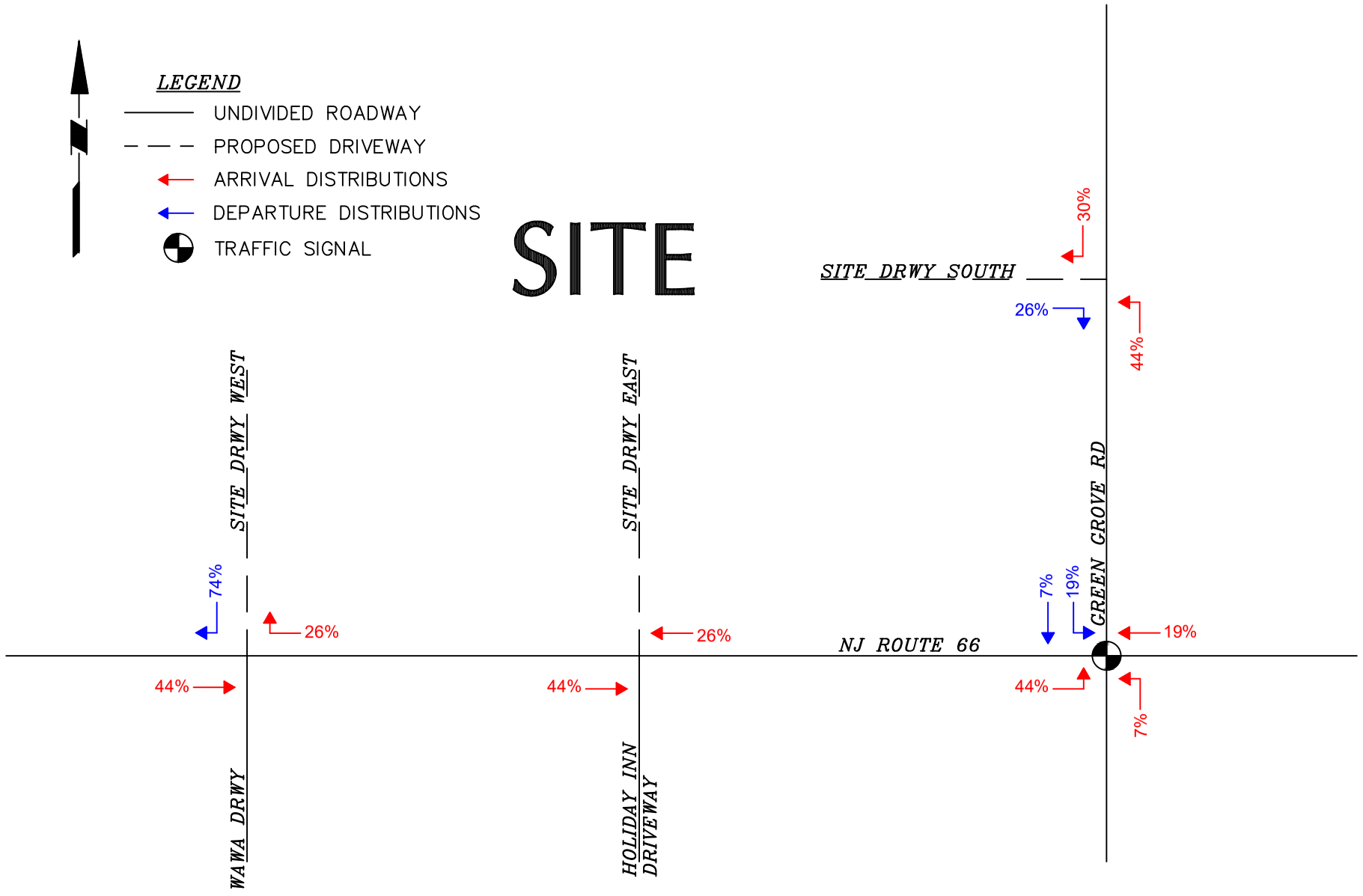

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BLOCK No. 3903, LOT Nos. 12 & 13
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MONMOUTH COUNTY NEW JERSEY

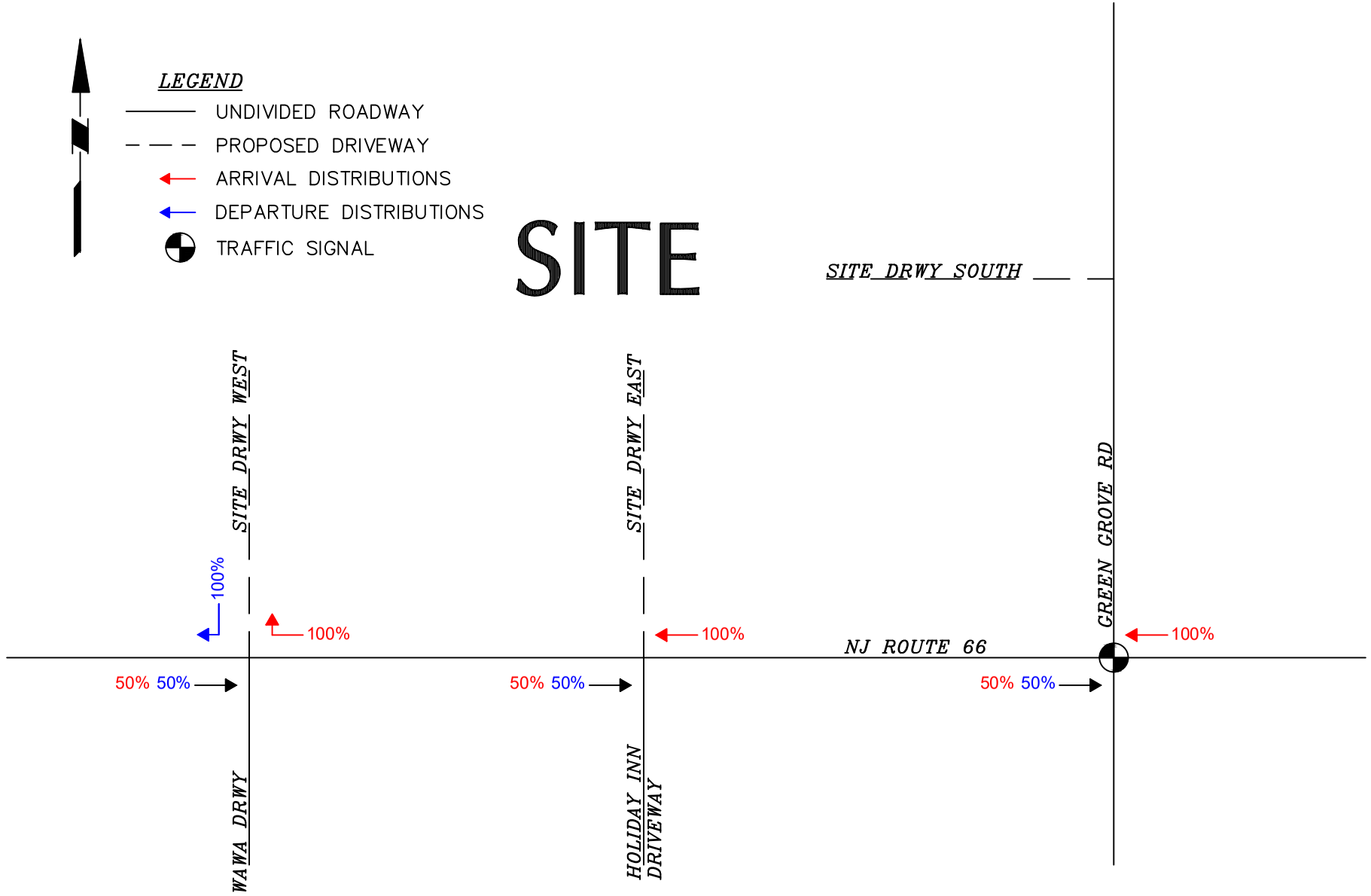
Drawing Title
ARRIVAL AND DEPARTURE DISTRIBUTIONS: WAREHOUSE PASSENGER VEHICLES

Project No.	100775002
Date	05/30/2023
Drawn By	EJV
Checked By	AWL

Figure 7

Sheet 7 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 7-ADPASS



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BLOCK No. 3903, LOT Nos. 12 & 13
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Drawing Title
ARRIVAL AND DEPARTURE DISTRIBUTIONS: WAREHOUSE TRUCKS

Project No.	100775002
Date	05/30/2023
Drawn By	EJV
Checked By	AWL

Figure **8**

Sheet 8 of 16

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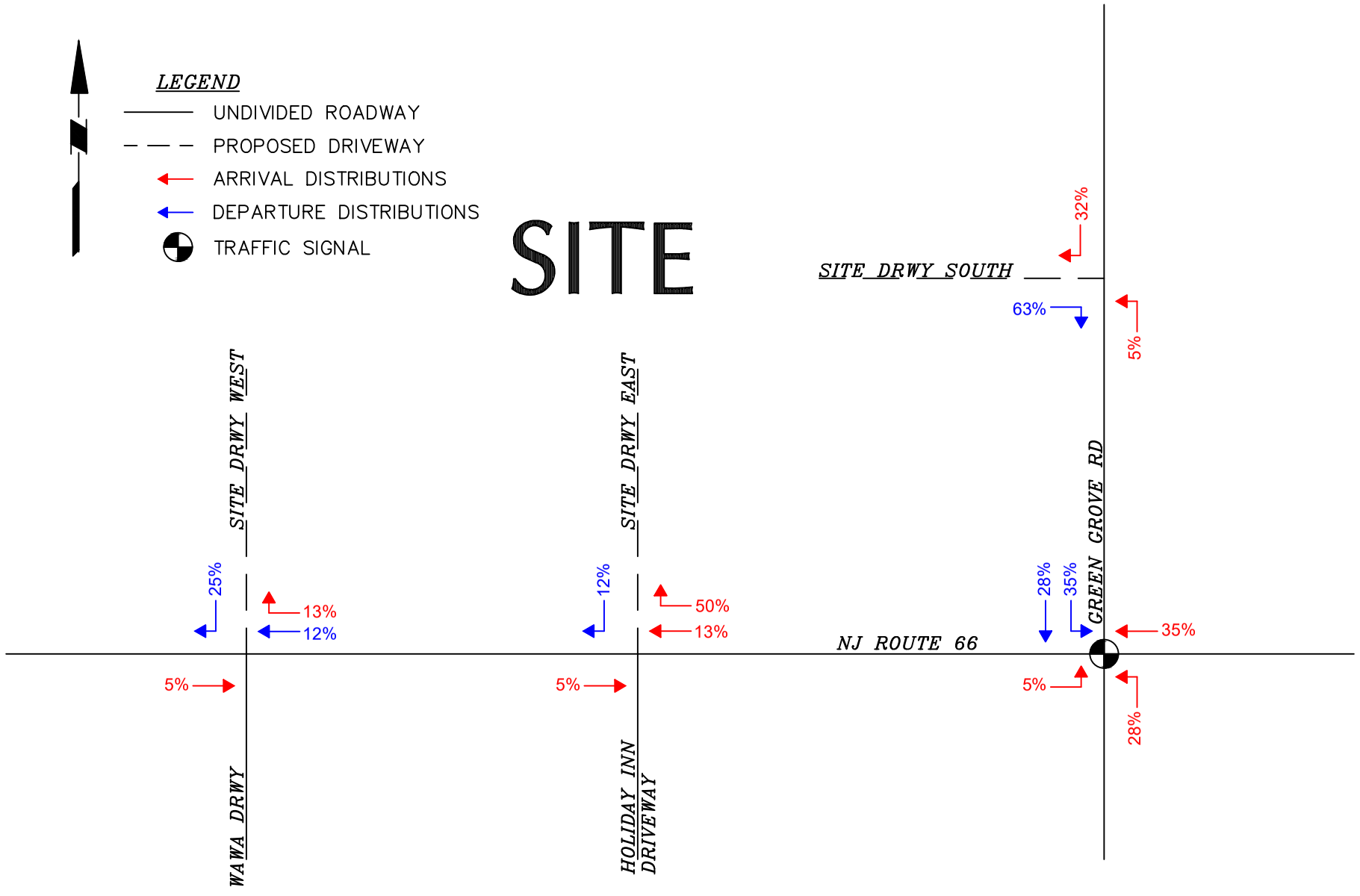

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BLOCK No. 3903, LOT Nos. 12 & 13
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

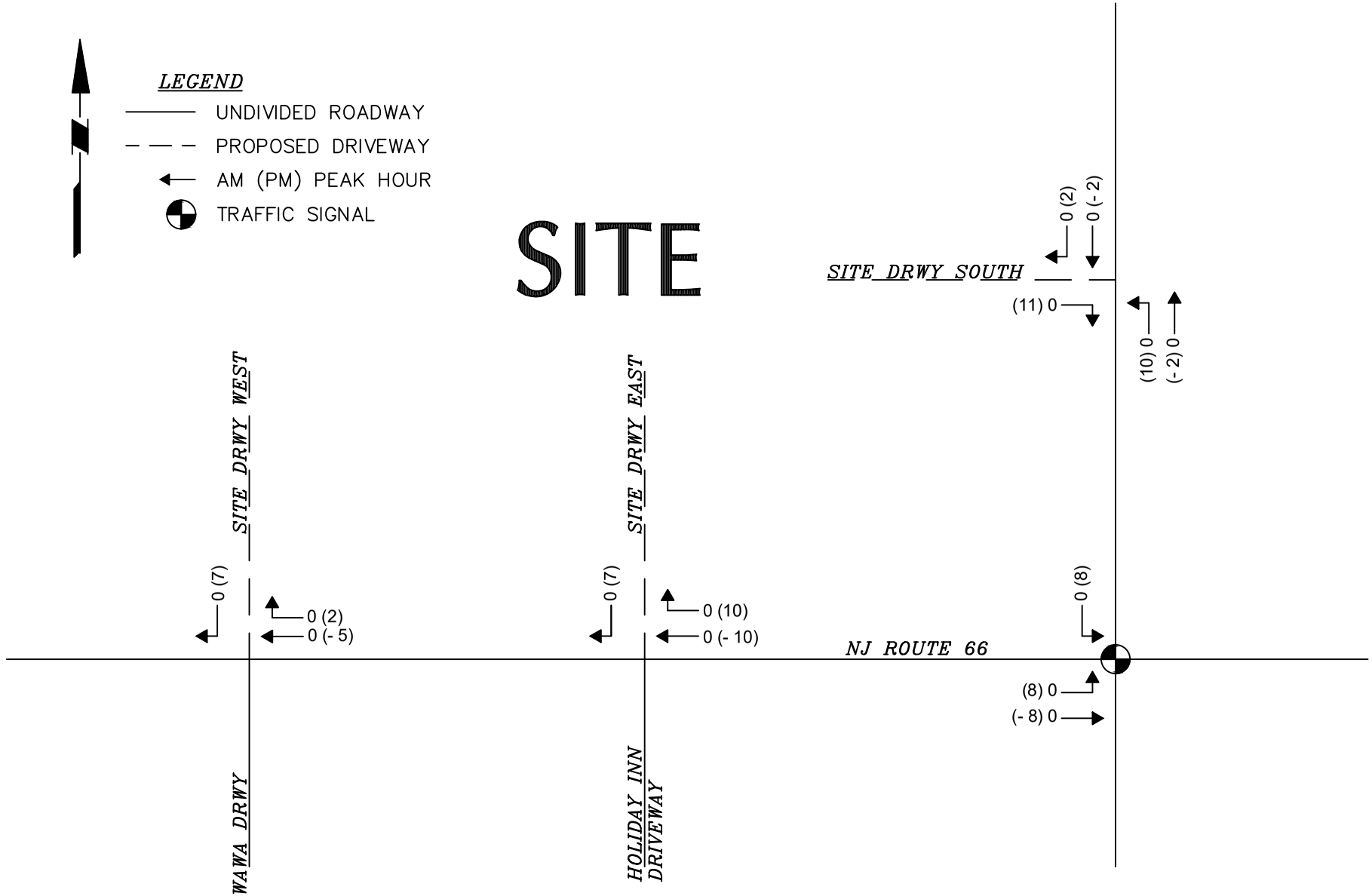
Drawing Title
ARRIVAL AND DEPARTURE DISTRIBUTIONS: RETAIL

Project No. 100775002
Date 05/30/2023
Drawn By EJV
Checked By AWL

Figure 9

Sheet 9 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 9-ADRET



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3501 ROUTE 66 NEPTUNE REDEVELOPMENT
BLOCK No. 3903, LOT Nos. 12 & 13
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

Drawing Title
RETAIL PASS-BY TRIPS

Project No.	100775002
Date	05/30/2023
Drawn By	EJV
Checked By	AWL

Figure **10**

Sheet 10 of 16

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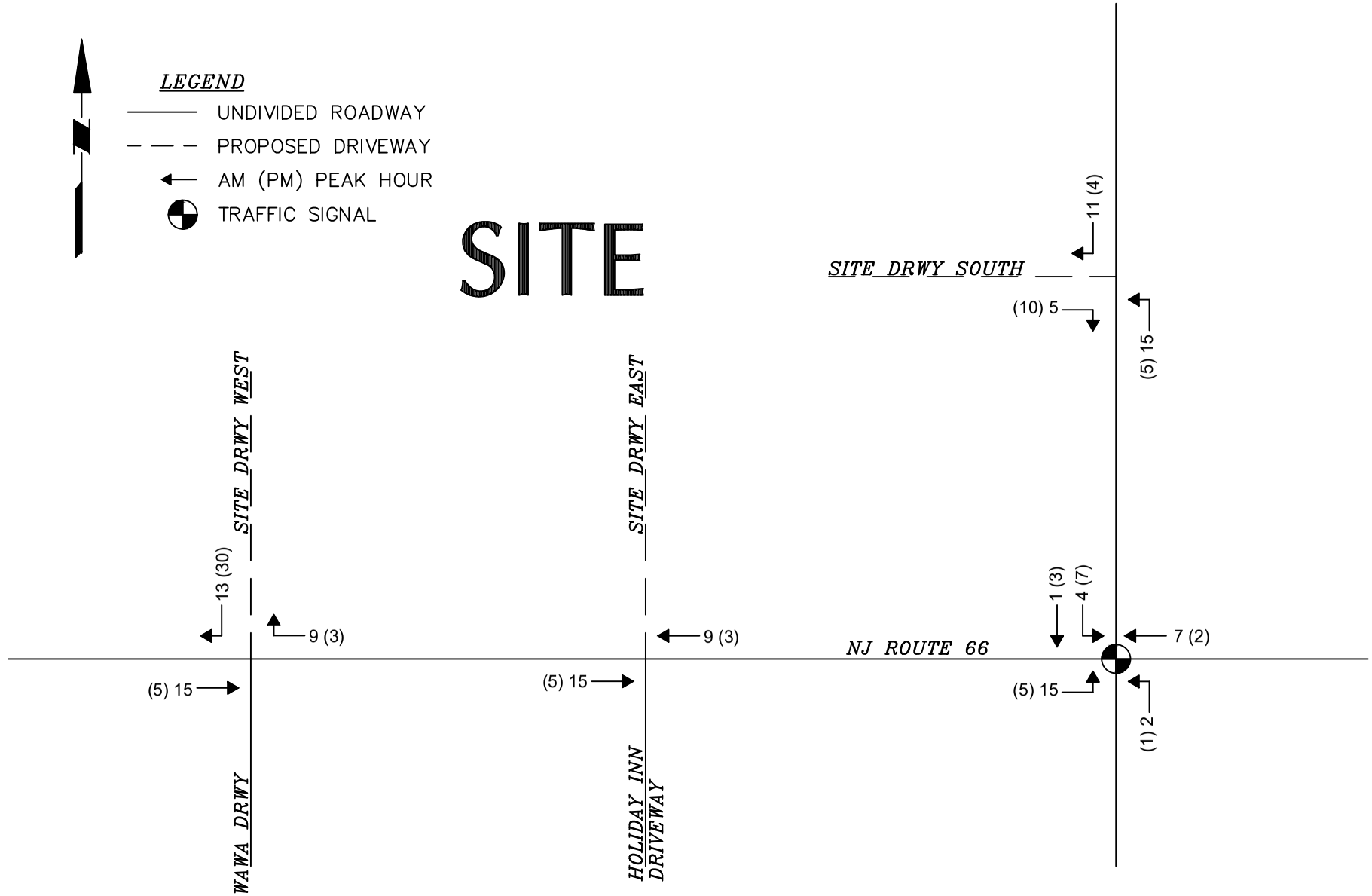
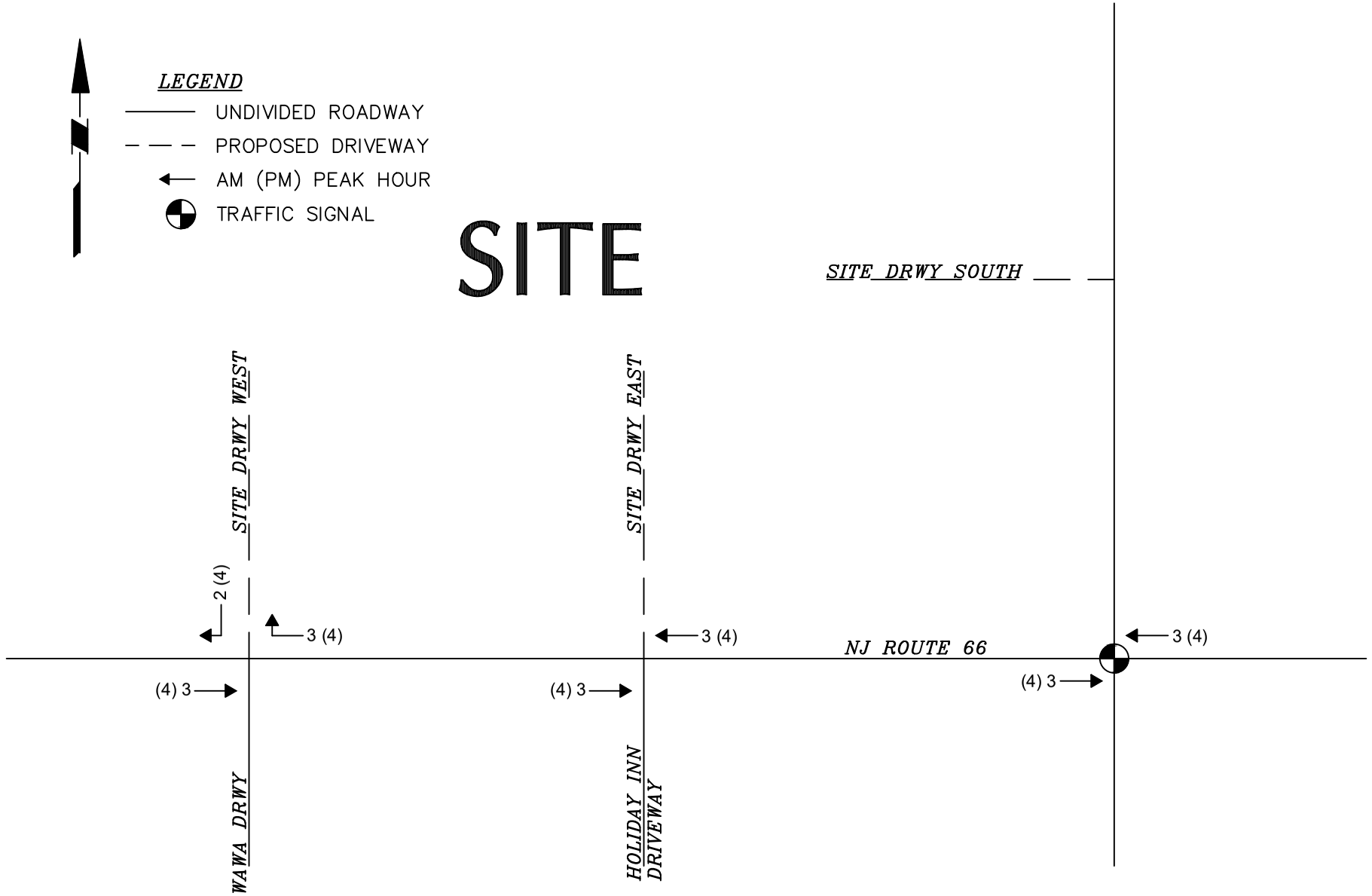


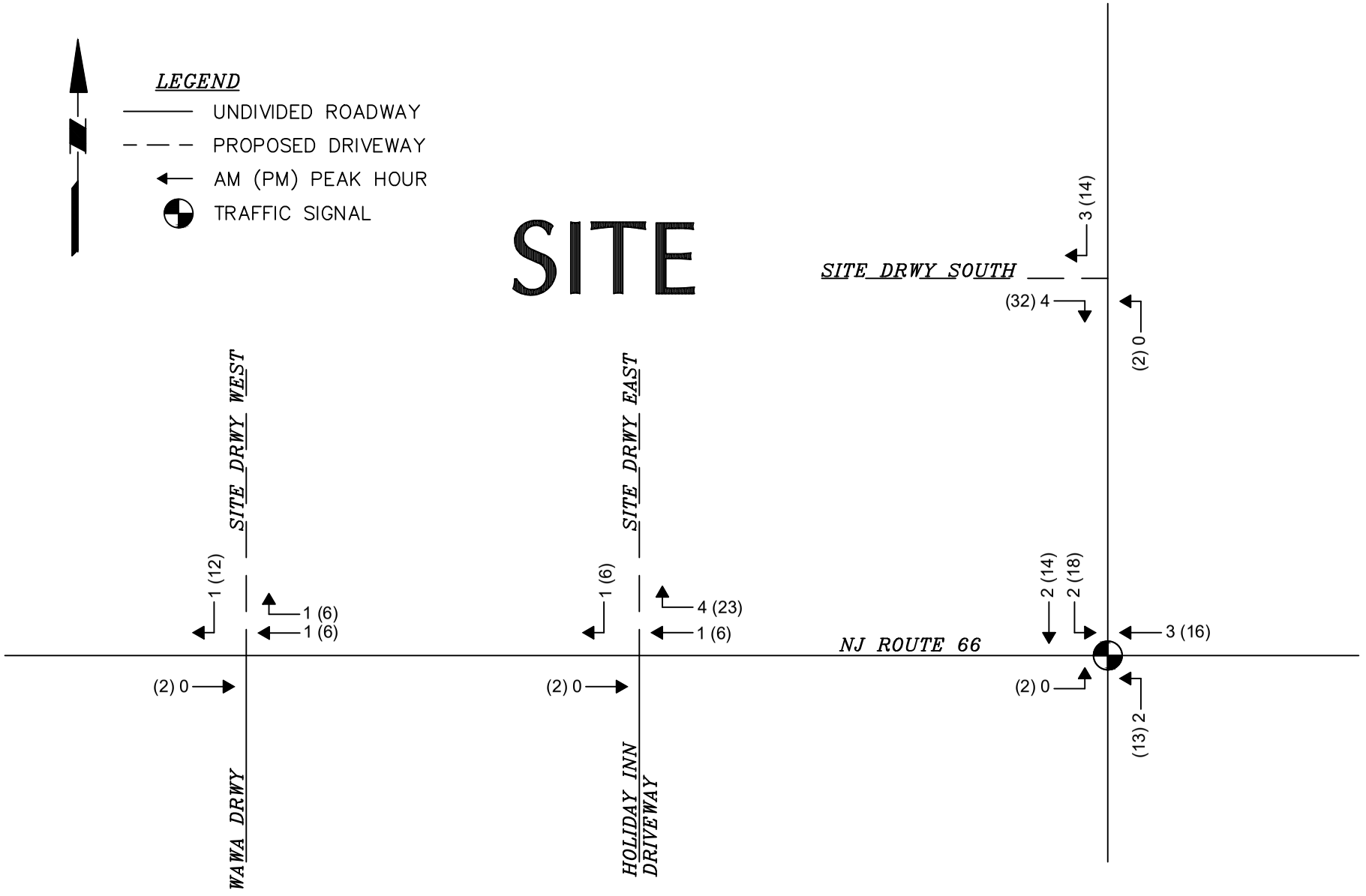
LANGAN Langan Engineering and Environmental Services, Inc. 989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project **3501 ROUTE 66 NEPTUNE REDEVELOPMENT** BLOCK No. 3903, LOT Nos. 12 & 13 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title **NEW SITE-GENERATED TRIPS: WAREHOUSE PASSENGER VEHICLE**	Project No. 100775002 Date 05/30/2023 Drawn By EJV Checked By AWL	Figure **11** Sheet 11 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 11-NEWPASS



	LANGAN Langan Engineering and Environmental Services, Inc. 989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project **3501 ROUTE 66 NEPTUNE REDEVELOPMENT** BLOCK No. 3903, LOT Nos. 12 & 13 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title **NEW SITE-GENERATED TRIPS: WAREHOUSE TRUCKS**	Project No. 100775002 Date 05/30/2023 Drawn By EJV Checked By AWL	Figure 12 Sheet 12 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 12-NEWT



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NJ Certificate of Authorization No.24GA27996400

Project
3501 ROUTE 66 NEPTUNE REDEVELOPMENT
BLOCK No. 3903, LOT Nos. 12 & 13
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

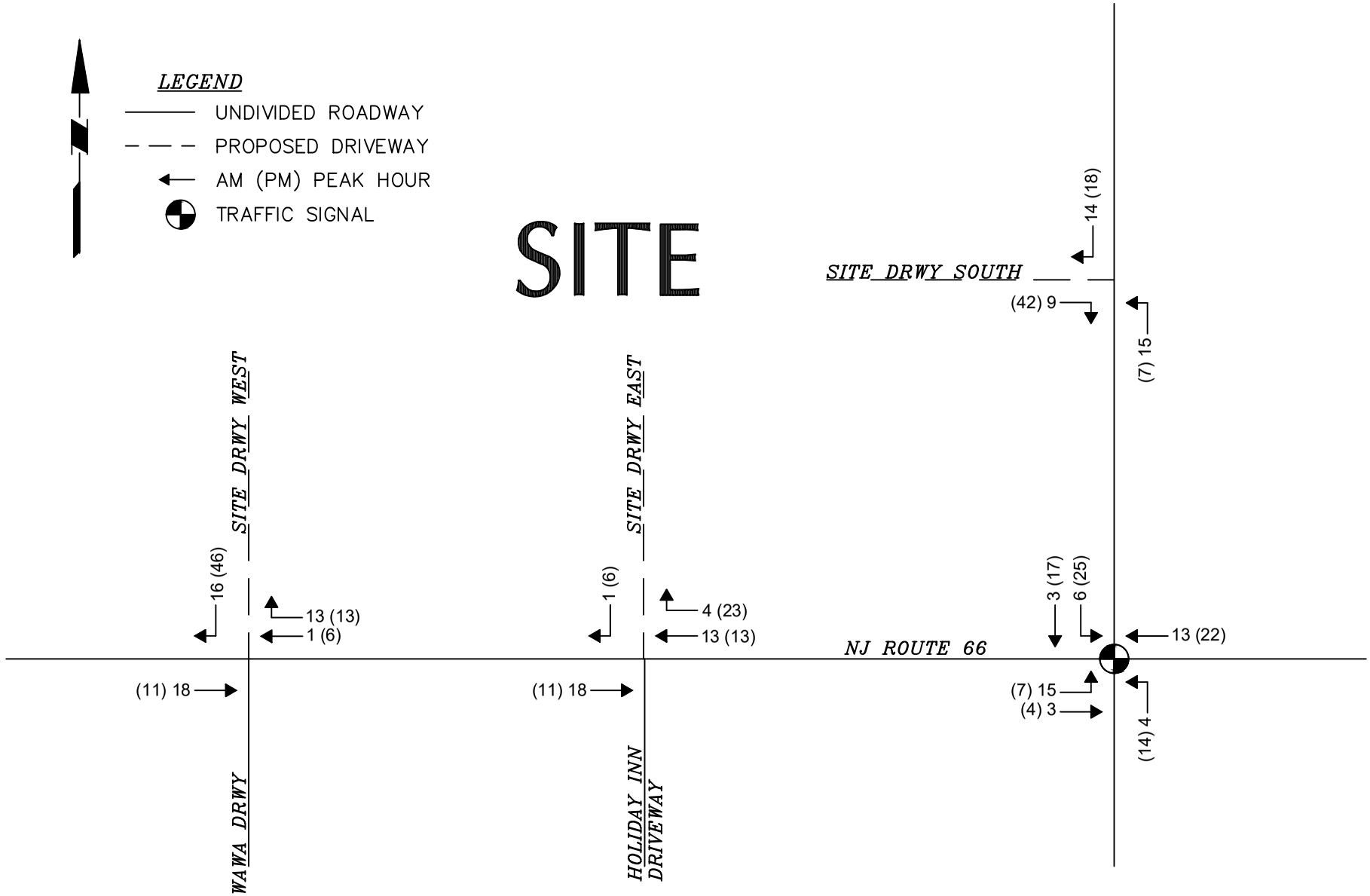
Drawing Title
NEW SITE-GENERATED TRIPS: RETAIL

Project No.	100775002
Date	05/30/2023
Drawn By	EJV
Checked By	AWL

Figure **13**

Sheet 13 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 13-NEWRE



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Project
3501 ROUTE 66 NEPTUNE REDEVELOPMENT
BLOCK No. 3903, LOT Nos. 12 & 13
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY NEW JERSEY

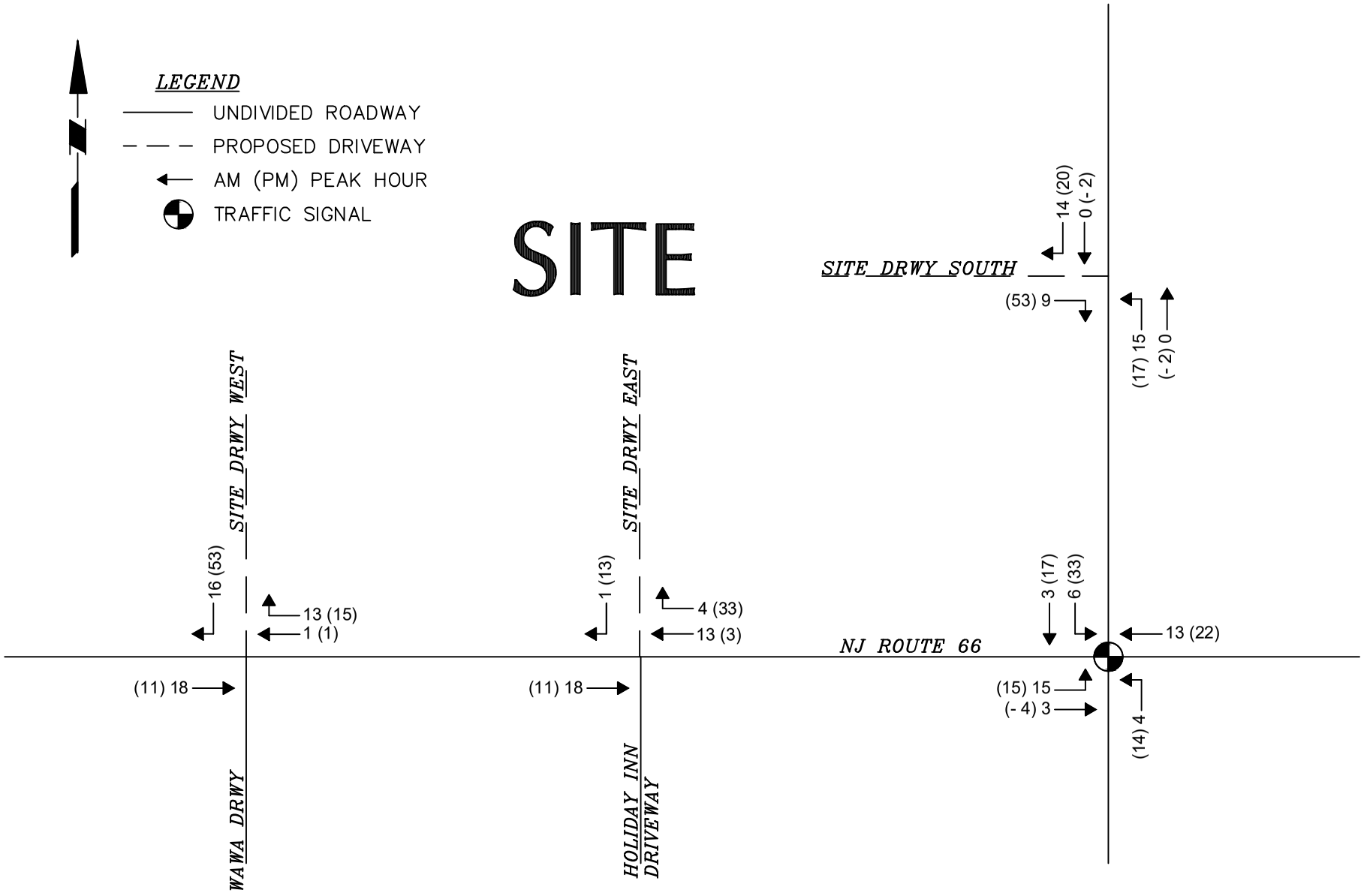
Drawing Title
TOTAL NEW SITE-GENERATED TRIPS

Project No.	100775002
Date	05/30/2023
Drawn By	EJV
Checked By	AWL

Figure 14

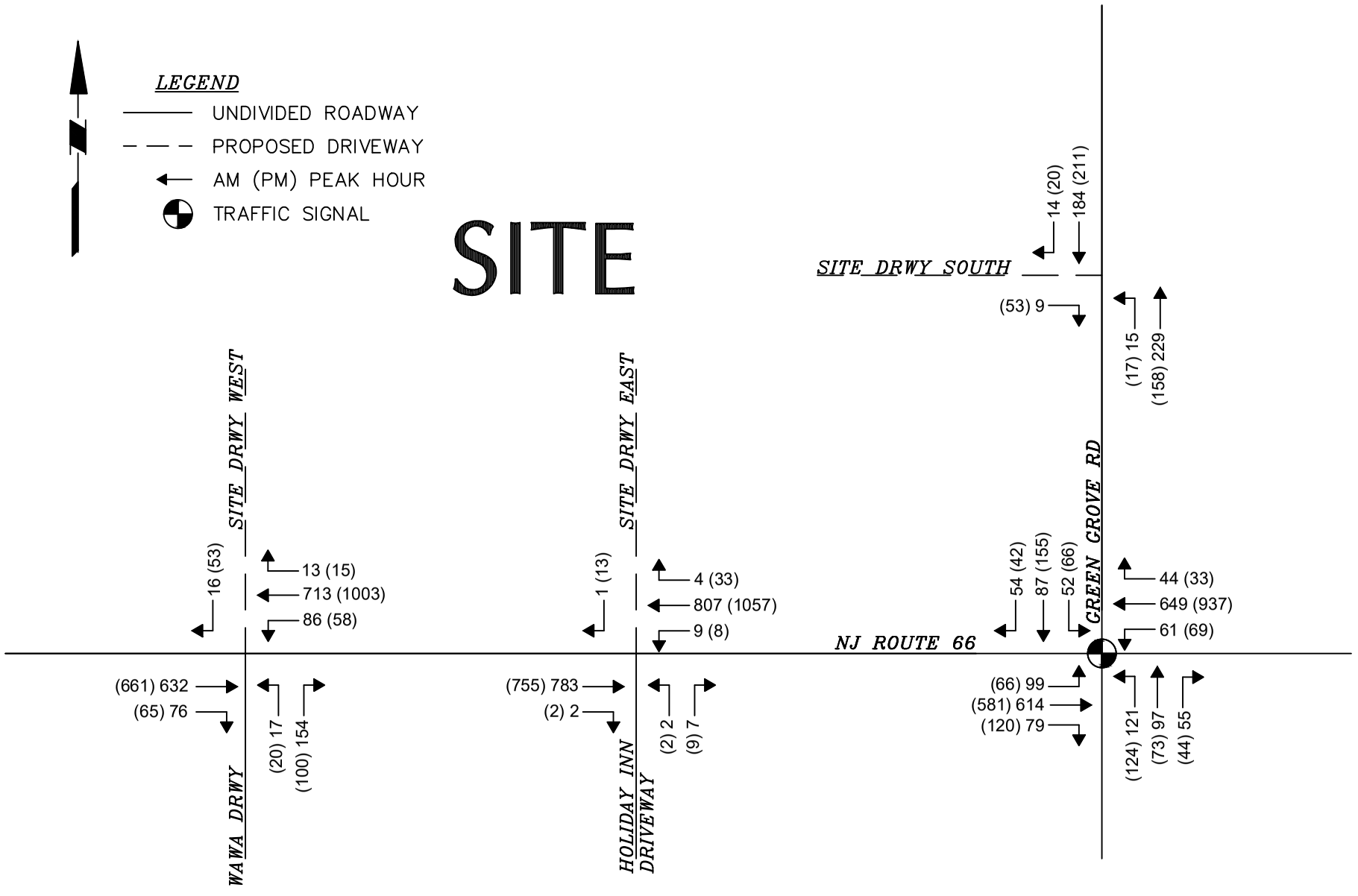
Sheet 14 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 14-NEW



	LANGAN Langan Engineering and Environmental Services, Inc. 989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project **3501 ROUTE 66 NEPTUNE REDEVELOPMENT** BLOCK No. 3903, LOT Nos. 12 & 13 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title **TOTAL SITE-GENERATED TRIPS**	Project No. 100775002 Date 05/30/2023 Drawn By EJV Checked By AWL	Figure 15 Sheet 15 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 15-TOTAL



LANGAN Langan Engineering and Environmental Services, Inc. 989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project **3501 ROUTE 66 NEPTUNE REDEVELOPMENT** BLOCK No. 3903, LOT Nos. 12 & 13 TOWNSHIP OF NEPTUNE MONMOUTH COUNTY NEW JERSEY	Drawing Title **2025 BUILD TRAFFIC VOLUMES**	Project No. 100775002 Date 05/30/2023 Drawn By EJV Checked By AWL	Figure 16 Sheet 16 of 16

Filename: \\langan.com\data\PAR\data0\100775001\Project Data_Discipline\Traffic\Figures & Tables\2023-05 Updated TIS Figures\2023-05 Updated TIS Figures.dwg Date: 5/30/2023 Time: 14:13 User: eviloria Style Table: Langan.stb Layout: 16-B

APPENDIX B
JOURNEY TO WORK & GRAVITY MODELS

Home Destination Report - Where Workers Live Who are Employed in the Selection Area - by Counties

Total All Jobs

	2019 Count	Share
Total All Jobs	3,311	100.0%
	3,311	

Jobs Counts by Counties Where Workers Live - All Jobs

	2019 Count	Share	
Monmouth County, NJ	1,568	47.4%	
Ocean County, NJ	726	21.9%	GSP NB to Route 66 EB
Middlesex County, NJ	223	6.7%	50% Route 66 EB or 50% Green Grove SB
Union County, NJ	65	2.0%	Green Grove SB
Bergen County, NJ	64	1.9%	Green Grove SB
Burlington County, NJ	62	1.9%	GSP NB to Route 66 EB
Camden County, NJ	53	1.6%	GSP NB to Route 66 EB
Somerset County, NJ	53	1.6%	Green Grove SB
Morris County, NJ	52	1.6%	Green Grove SB
Mercer County, NJ	51	1.5%	Route 66 EB
Essex County, NJ	50	1.5%	Green Grove SB
Passaic County, NJ	42	1.3%	Green Grove SB
Hudson County, NJ	39	1.2%	Green Grove SB
Gloucester County, NJ	32	1.0%	GSP NB to Route 66 EB
Atlantic County, NJ	29	0.9%	GSP NB to Route 66 EB
Hunterdon County, NJ	22	0.7%	Green Grove SB
Sussex County, NJ	20	0.6%	Green Grove SB
Cumberland County, NJ	19	0.6%	GSP NB to Route 66 EB
Philadelphia County, PA	16	0.5%	GSP NB to Route 66 EB
Warren County, NJ	14	0.4%	Green Grove SB
New York County, NY	12	0.4%	Green Grove SB
Kings County, NY	10	0.3%	Green Grove SB
Nassau County, NY	10	0.3%	Green Grove SB
Richmond County, NY	10	0.3%	Green Grove SB
Cape May County, NJ	9	0.3%	GSP NB to Route 66 EB
Bucks County, PA	8	0.2%	50% Route 66 EB or 50% Green Grove SB
Bronx County, NY	7	0.2%	Green Grove SB
Salem County, NJ	5	0.2%	GSP NB to Route 66 EB
Queens County, NY	5	0.2%	Green Grove SB
Rockland County, NY	5	0.2%	Green Grove SB
Orange County, NY	4	0.1%	Green Grove SB
Northampton County, PA	4	0.1%	Green Grove SB
New Castle County, DE	3	0.1%	GSP NB to Route 66 EB
Suffolk County, NY	3	0.1%	Green Grove SB
Westchester County, NY	3	0.1%	Green Grove SB
Chester County, PA	3	0.1%	GSP NB to Route 66 EB
Lehigh County, PA	3	0.1%	50% Route 66 EB or 50% Green Grove SB
Montgomery County, PA	3	0.1%	GSP NB to Route 66 EB
Dutchess County, NY	2	0.1%	Green Grove SB
Delaware County, PA	2	0.1%	GSP NB to Route 66 EB

Total All Jobs

	2019 Count	Share
Total All Jobs	1,568	100.0%

Jobs Counts by County Subdivisions Where Workers Live - All Jobs

	2019 Count	Share	
Neptune township (Monmouth, NJ)	350	10.4%	50% Green Grove NB or 50% Route 66 WB
Asbury Park city (Monmouth, NJ)	128	3.8%	Route 66 WB
Ocean township (Monmouth, NJ)	117	3.5%	65% Green Grove SB or 35% Route 66 WB
Howell township (Monmouth, NJ)	104	3.1%	Route 66 EB
Long Branch city (Monmouth, NJ)	87	2.6%	65% Green Grove SB or 35% Route 66 WB
Middletown township (Monmouth, NJ)	81	2.4%	80% Green Grove SB or 20% Route 66 WB
Wall township (Monmouth, NJ)	65	1.9%	35% Route 66 EB/WB and 30% Green Grove Nb
Tinton Falls borough (Monmouth, NJ)	60	1.8%	40% Green Grove SB or 40% Route 66 WB or 20% Route 66 EB
Eatontown borough (Monmouth, NJ)	59	1.8%	40% Green Grove SB or 60% Route 66 WB
Freehold township (Monmouth, NJ)	54	1.6%	Route 66 EB
Manalapan township (Monmouth, NJ)	52	1.6%	Route 66 EB
Neptune City borough (Monmouth, NJ)	38	1.1%	50% Green Grove NB or 50% Route 66 WB
West Long Branch borough (Monmouth, NJ)	34	1.0%	55% Green Grove SB or 45% Route 66 WB
Belmar borough (Monmouth, NJ)	32	1.0%	50% Green Grove NB or 50% Route 66 WB
Hazlet township (Monmouth, NJ)	28	0.8%	80% Green Grove SB or 20% Route 66 WB
Keansburg borough (Monmouth, NJ)	24	0.7%	Green Grove SB
Aberdeen township (Monmouth, NJ)	21	0.6%	75% Green Grove SB or 25% Route 66 WB
Marlboro township (Monmouth, NJ)	21	0.6%	30% Route 66 WB or 50% Route 66 EB or 20% Green Grove SB
Matawan borough (Monmouth, NJ)	17	0.5%	35% Route 66 WB or 35% Route 66 EB or 30% Green Grove SB
Freehold borough (Monmouth, NJ)	15	0.4%	Route 66 EB
Holmdel township (Monmouth, NJ)	15	0.4%	35% Route 66 WB or 35% Route 66 EB or 30% Green Grove SB
Red Bank borough (Monmouth, NJ)	14	0.4%	50% Green Grove SB or 50% Route 66 WB
Colts Neck township (Monmouth, NJ)	12	0.4%	60% Green Grove SB or 40% Route 66 WB
Oceanport borough (Monmouth, NJ)	11	0.3%	50% Green Grove SB or 50% Route 66 WB
Manasquan borough (Monmouth, NJ)	10	0.3%	Route 66 EB
Shrewsbury borough (Monmouth, NJ)	10	0.3%	50% Green Grove SB or 50% Route 66 WB
Highlands borough (Monmouth, NJ)	9	0.3%	50% Green Grove SB or 50% Route 66 WB
Shrewsbury township (Monmouth, NJ)	9	0.3%	60% Green Grove SB or 40% Route 66 WB
Brielle borough (Monmouth, NJ)	8	0.2%	Route 66 WB
Monmouth Beach borough (Monmouth, NJ)	8	0.2%	50% Green Grove SB or 50% Route 66 WB
Spring Lake Heights borough (Monmouth, NJ)	8	0.2%	35% Route 66 WB or 35% Route 66 EB or 30% Green Grove NB
Bradley Beach borough (Monmouth, NJ)	7	0.2%	50% Green Grove NB or 50% Route 66 WB
Farmingdale borough (Monmouth, NJ)	7	0.2%	Route 66 EB
Little Silver borough (Monmouth, NJ)	7	0.2%	50% Green Grove SB or 50% Route 66 WB
Millstone township (Monmouth, NJ)	7	0.2%	Route 66 EB
Rumson borough (Monmouth, NJ)	5	0.1%	60% Green Grove SB or 40% Route 66 WB
Atlantic Highlands borough (Monmouth, NJ)	4	0.1%	60% Green Grove SB or 40% Route 66 WB
Keyport borough (Monmouth, NJ)	4	0.1%	60% Green Grove SB or 40% Route 66 WB
Spring Lake borough (Monmouth, NJ)	4	0.1%	35% Route 66 WB or 35% Route 66 EB or 30% Green Grove NB
Avon-by-the-Sea borough (Monmouth, NJ)	3	0.1%	50% Green Grove NB or 50% Route 66 WB
Interlaken borough (Monmouth, NJ)	3	0.1%	40% Green Grove SB or 60% Route 66 WB
Sea Bright borough (Monmouth, NJ)	3	0.1%	50% Green Grove SB or 50% Route 66 WB
Union Beach borough (Monmouth, NJ)	3	0.1%	60% Green Grove SB or 40% Route 66 WB
Allenhurst borough (Monmouth, NJ)	2	0.1%	Route 66 WB
Allentown borough (Monmouth, NJ)	2	0.1%	Route 66 EB
Lake Como borough (Monmouth, NJ)	2	0.1%	35% Route 66 WB or 35% Route 66 EB or 30% Green Grove NB
Loch Arbour village (Monmouth, NJ)	2	0.1%	Route 66 WB
Fair Haven borough (Monmouth, NJ)	1	0.0%	60% Green Grove SB or 40% Route 66 WB
Roosevelt borough (Monmouth, NJ)	1	0.0%	Route 66 EB

Route 66 (East)	621	18.76%	19%
Route 66 (West)	1443	43.58%	44%
Green Grove (North)	1008	30.44%	30%
Green Grove (South)	239	7.22%	7%
	3311	100.00%	100%

Project Name:	Route 66
Project Number:	100775001
Project Location:	Neptune, NJ
Date:	July 7, 2022
Prepared by:	EJV

Route 66 (East)	34.6%	35%
Route 66 (West)	4.6%	5%
Green Grove (North)	32.4%	32%
Green Grove (South)	28.5%	28%
	100.0%	100.0%

Gravity Model

Minutes

Census Tract	2019 Population	Percentage of Population within Study Area	Study Area Population (A_i)	Travel Time (t)	(A_i/t^2)	Distribution Percentage (T_{ij})	Distribution Percentage Rounded	Intersection	Route
8079 - SITE	4020	100%	4020	3	447	14.9%	15%	Bangs Ave & Shorebrook Circle	Green Grove NB
8078	4333	100%	4333	4	271	9.0%	9%	Palmer Ave & Wayside Rd	50% Route 66 WB and 50% Green Grove NB
8080.02	2332	100%	2332	6	65	2.2%	2%	Gully Rd & Old Corlies Ave	50% Route 66 EB and 50% Green Grove NB
8077	3821	100%	3821	6	106	3.5%	4%	Lake Ave & Doremus Way	50% Route 66 WB and 50% Green Grove NB
8080.01	4075	100%	4075	11	34	1.1%	1%	Lakewood Rd & Forest Dr	35% Route 66 WB or 30% Route 66 EB or 35% Green Grove NB
8085.01	3569	95%	3391	10	34	1.1%	1%	Belmar Blvd & Bay Plaza	35% Route 66 WB or 35% Route 66 EB or 30% Green Grove NB
8086	6130	100%	6130	9	76	2.5%	3%	Belmar Blvd & Woodfield Ave	50% Route 66 EB and 50% Green Grove NB
8087.01	5125	25%	1281	10	13	0.4%	0%	18th Ave & Baileys Corner Rd	70% Route 66 EB and 30% Route 66 WB
8089.02	2464	50%	1232	13	7	0.2%	0%	Wall Rd & Kipling Ave	45% Route 66 EB and 55% Route 66 WB
8085.02	2939	100%	2939	12	20	0.7%	1%	18th Ave & Bellewood Ave	45% Route 66 EB and 55% Route 66 WB
8090	1697	100%	1697	15	8	0.3%	0%	18th Ave & Main Street	35% Route 66 WB or 30% Route 66 EB or 35% Green Grove NB
8084.02	3749	100%	3749	13	22	0.7%	1%	Main St/Est & 13th Street	35% Route 66 WB or 30% Route 66 EB or 35% Green Grove NB
8084.01	2158	100%	2158	13	13	0.4%	0%	Main St/Est & 7th Street	35% Route 66 WB or 30% Route 66 EB or 35% Green Grove NB
8083	1933	100%	1933	12	13	0.4%	0%	Sylvania Ave & 3rd Ave	50% Greeen Grove NB or 50% Route 66 WB
8081	4626	100%	4626	9	57	1.9%	2%	Sylvania Ave & Hawthorne Ave	50% Greeen Grove NB or 50% Route 66 WB
8082.01	4075	100%	4075	12	28	0.9%	1%	Hammond Ave & 5th Ave	50% Greeen Grove NB or 50% Route 66 WB
8082.02	2332	100%	2332	13	14	0.5%	0%	Brinley Ave & Beach Ave	50% Greeen Grove NB or 50% Route 66 WB
8075	2988	100%	2988	12	21	0.7%	1%	Route 35 & 8th Ave	35% Route 66 WB or 30% Route 66 EB or 35% Green Grove NB
8074.02	1879	100%	1879	12	13	0.4%	0%	Broadway & Delaware Ave	40% Greeen Grove NB or 60% Route 66 WB
8074.01	1178	100%	1178	13	7	0.2%	0%	Main Ave & Beach Ave	40% Greeen Grove NB or 60% Route 66 WB
8076	3435	100%	3435	11	28	0.9%	1%	Lake Ave & Fisher Ave	40% Greeen Grove NB or 60% Route 66 WB
8073	3390	100%	3390	8	53	1.8%	2%	Bangs Ave & Dewitt Ave	30% Greeen Grove NB or 70% Route 66 WB
8072	2389	100%	2389	10	24	0.8%	1%	Bangs Ave & Langford St	30% Greeen Grove NB or 70% Route 66 WB
8070.05	2422	100%	2422	11	20	0.7%	1%	Asbury Ave & Bond St	30% Greeen Grove NB or 70% Route 66 WB
8070.06	1921	100%	1921	11	16	0.5%	1%	Kingsley St & 4th Ave	Route 66 WB
8071	2389	100%	2389	10	24	0.8%	1%	3rd Ave & Comstock St	Route 66 WB
8070.04	2677	100%	2677	12	19	0.6%	1%	Kingsley St & 7th Ave	Route 66 WB
8124	2424	100%	2424	14	12	0.4%	0%	Ocean Ave & Roseld Ave	50% Greeen Grove SB or 50% Route 66 WB
8063	2435	100%	2435	12	17	0.6%	1%	Monmouth Rd & Roosevelt Ave	50% Greeen Grove SB or 50% Route 66 WB
8061	3466	15%	520	15	2	0.1%	0%	Lincoln Ave & Truax Rd	50% Greeen Grove SB or 50% Route 66 WB
8062.01	4039	60%	2423	11	20	0.7%	1%	Monmouth Rd & Palmer Ave	50% Greeen Grove SB or 50% Route 66 WB
8062.02	4548	20%	910	13	5	0.2%	0%	Arlene Dr & Muncy Dr	60% Greeen Grove SB or 40% Route 66 WB
8122	3823	5%	191	12	1	0.0%	0%	Wyckoff Rd & Brookwood Dr	50% Greeen Grove SB or 50% Route 66 WB
8050.01	5755	50%	2878	9	36	1.2%	1%	Grant Ave & Stony Hill Rd	50% Greeen Grove SB or 50% Route 66 WB
8126	5634	5%	282	12	2	0.1%	0%	Pinebrook Rd & Eatoncrest Dr	60% Greeen Grove SB or 40% Route 66 WB
8046	3403	40%	1361	11	11	0.4%	0%	Rutgers Dr & Harvard Dr	50% Greeen Grove SB or 50% Route 66 WB
8099.02	4606	0%	0	-	-	-	-	-	
8099.03	194	0%	0	-	-	-	-	-	
8048.01	7330	100%	7330	4	458	15.3%	15%	Asbury Ave & Shafto Rd	Green Grove SB Enter and 70% Route 66 EB Exit
8048.02	2817	100%	2817	3	313	10.4%	10%	Asbury Ave & Essex Rd	Green Grove SB
8115.02	3867	0%	0	-	-	-	-	-	
8111.02	7265	5%	363	8	6	0.2%	0%	Route 34 & Tinton Falls Rd	Route 66 EB
8065.03	3997	100%	3997	4	250	8.3%	8%	Cold Indian Springs Rd & Bowne Rd	20% Greeen Grove SB or 80% Route 66 WB
8065.04	2770	100%	2770	7	57	1.9%	2%	Sunset Ave & Roller Rd	Route 66 WB
8066	5402	100%	5402	8	84	2.8%	3%	Sunset Ave & Logan Rd	Route 66 WB
8065.02	3797	100%	3797	6	105	3.5%	4%	Deal Rd & Poplar Rd	35% Greeen Grove SB or 65% Route 66 WB
8065.01	4136	100%	4136	7	84	2.8%	3%	Park Ave & Hidden Meadows Dr	35% Greeen Grove SB or 65% Route 66 WB
8064	5135	100%	5135	11	42	1.4%	1%	Whalepond Rd & Dow Ave	35% Greeen Grove SB or 65% Route 66 WB
8051	4284	100%	4284	10	43	1.4%	1%	Watt St & Industrial Way E	35% Greeen Grove SB or 65% Route 66 WB
				Sum	**3001**	**100.0%**	**100%**		

APPENDIX C
TRAFFIC COUNTS

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Neptune, NJ
Route 66 & Green Grove Rd
Wednesday, June 15, 2022
Location: 40.226571, -74.07336

Count Name: Rt. 66 & Green Grove Rd (6/15)
Site Code:
Start Date: 06/15/2022

Turning Movement Data

Start Time	Rt. 66 Eastbound							Rt. 66 Westbound							Green Grove Rd Northbound							Green Grove Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
6:00 AM	4	35	2	0	0	0	41	2	48	0	0	0	0	50	7	5	4	0	0	0	16	0	2	0	1	0	0	3	110
6:15 AM	6	52	4	3	0	0	65	3	75	0	0	0	0	78	21	7	4	3	0	0	35	1	5	1	4	0	0	11	189
6:30 AM	6	65	6	3	0	0	80	5	91	1	0	0	0	97	22	14	3	1	0	0	40	2	4	1	2	0	0	9	226
6:45 AM	8	88	11	7	0	0	114	9	110	3	2	0	0	124	28	13	7	2	0	0	50	8	10	3	4	0	0	25	313
Hourly Total	24	240	23	13	0	0	300	19	324	4	2	0	0	349	78	39	18	6	0	0	141	11	21	5	11	0	0	48	838
7:00 AM	11	112	8	3	0	0	134	3	84	4	1	0	0	92	18	20	13	3	0	0	54	4	9	5	6	0	0	24	304
7:15 AM	14	151	10	1	0	0	176	8	107	4	2	0	0	121	17	19	13	3	0	1	52	4	10	4	2	0	0	20	369
7:30 AM	6	141	9	4	0	0	160	11	126	5	3	0	0	145	27	19	9	4	0	0	59	7	14	5	6	0	0	32	396
7:45 AM	7	143	10	5	0	0	165	9	134	9	2	0	1	154	29	17	8	1	0	0	55	11	11	2	9	0	0	33	407
Hourly Total	38	547	37	13	0	0	635	31	451	22	8	0	1	512	91	75	43	11	0	1	220	26	44	16	23	0	0	109	1476
8:00 AM	22	142	14	2	0	0	180	14	160	5	2	0	0	181	22	17	9	2	0	0	50	10	16	3	6	0	0	35	446
8:15 AM	28	132	7	2	0	0	169	15	142	9	0	0	2	166	27	24	7	9	0	0	67	14	20	4	6	0	0	44	446
8:30 AM	20	154	16	3	0	0	193	15	154	13	1	0	1	183	36	23	4	2	0	0	65	10	17	7	5	0	1	39	480
8:45 AM	11	161	22	10	0	1	204	15	154	6	6	0	0	181	24	26	17	1	0	0	68	9	25	12	7	0	0	53	506
Hourly Total	81	589	59	17	0	1	746	59	610	33	9	0	3	711	109	90	37	14	0	0	250	43	78	26	24	0	1	171	1878
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	10	135	28	3	0	0	176	14	207	6	2	0	0	229	45	23	13	4	0	0	85	6	28	6	4	0	0	44	534
3:15 PM	11	139	19	6	0	0	175	25	170	7	0	0	0	202	42	37	9	2	0	0	90	11	27	6	4	0	0	48	515
3:30 PM	13	151	24	5	0	0	193	12	211	6	1	0	1	230	43	18	7	5	0	0	73	10	21	6	4	0	0	41	537
3:45 PM	15	153	26	1	0	0	195	10	209	7	1	0	1	227	31	17	7	1	0	0	56	6	32	3	3	0	0	44	522
Hourly Total	49	578	97	15	0	0	739	61	797	26	4	0	2	888	161	95	36	12	0	0	304	33	108	21	15	0	0	177	2108
4:00 PM	14	139	27	2	0	0	182	17	217	9	2	0	0	245	26	22	10	1	0	0	59	4	30	9	2	0	0	45	531
4:15 PM	9	137	17	8	0	0	171	24	195	5	3	0	0	227	28	19	9	1	0	0	57	7	33	4	4	0	0	48	503
4:30 PM	10	136	26	6	0	0	178	12	234	4	3	0	0	253	25	11	9	0	0	0	45	10	27	9	2	0	0	48	524
4:45 PM	16	152	28	2	0	0	198	13	236	5	1	0	0	255	23	16	8	3	0	0	50	10	38	3	6	0	0	57	560
Hourly Total	49	564	98	18	0	0	729	66	882	23	9	0	0	980	102	68	36	5	0	0	211	31	128	25	14	0	0	198	2118
5:00 PM	7	148	17	7	0	0	179	11	193	16	3	0	0	223	27	12	9	2	0	0	50	5	34	3	2	0	0	44	496
5:15 PM	22	153	15	8	0	0	198	15	203	9	1	0	0	228	22	15	10	3	0	0	50	8	26	3	2	0	0	39	515
5:30 PM	10	139	14	8	0	0	171	22	207	12	3	0	0	244	26	17	6	7	0	0	56	10	39	7	2	0	0	58	529
5:45 PM	9	129	22	8	0	0	168	11	183	5	3	0	0	202	29	14	3	6	0	0	52	7	33	4	4	0	0	48	470
Hourly Total	48	569	68	31	0	0	716	59	786	42	10	0	0	897	104	58	28	18	0	0	208	30	132	17	10	0	0	189	2010
6:00 PM	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	289	3088	382	107	0	1	3866	295	3851	150	42	0	6	4338	645	425	198	66	0	1	1334	174	511	110	97	0	1	892	10430
Approach %	7.5	79.9	9.9	2.8	0.0	-	-	6.8	88.8	3.5	1.0	0.0	-	-	48.4	31.9	14.8	4.9	0.0	-	-	19.5	57.3	12.3	10.9	0.0	-	-	-
Total %	2.8	29.6	3.7	1.0	0.0	-	37.1	2.8	36.9	1.4	0.4	0.0	-	41.6	6.2	4.1	1.9	0.6	0.0	-	12.8	1.7	4.9	1.1	0.9	0.0	-	8.6	-
Lights	276	2990	378	105	0	-	3749	285	3732	147	42	0	-	4206	634	418	194	65	0	-	1311	167	499	103	93	0	-	862	10128
% Lights	95.5	96.8	99.0	98.1	-	-	97.0	96.6	96.9	98.0	100.0	-	-	97.0	98.3	98.4	98.0	98.5	-	-	98.3	96.0	97.7	93.6	95.9	-	-	96.6	97.1
Buses	5	14	0	0	0	-	19	4	29	2	0	0	-	35	2	5	3	0	0	-	10	6	9	5	3	0	-	23	87
% Buses	1.7	0.5	0.0	0.0	-	-	0.5	1.4	0.8	1.3	0.0	-	-	0.8	0.3	1.2	1.5	0.0	-	-	0.7	3.4	1.8	4.5	3.1	-	-	2.6	0.8
Trucks	8	84	4	2	0	-	98	6	90	1	0	0	-	97	9	2	1	1	0	-	13	1	3	2	1	0	-	7	215
% Trucks	2.8	2.7	1.0	1.9	-	-	2.5	2.0	2.3	0.7	0.0	-	-	2.2	1.4	0.5	0.5	1.5	-	-	1.0	0.6	0.6	1.8	1.0	-	-	0.8	2.1
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	100.0	-	-	-	-	-	-	16.7	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	5	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	0.0	-	-	-	-	-	-	83.3	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

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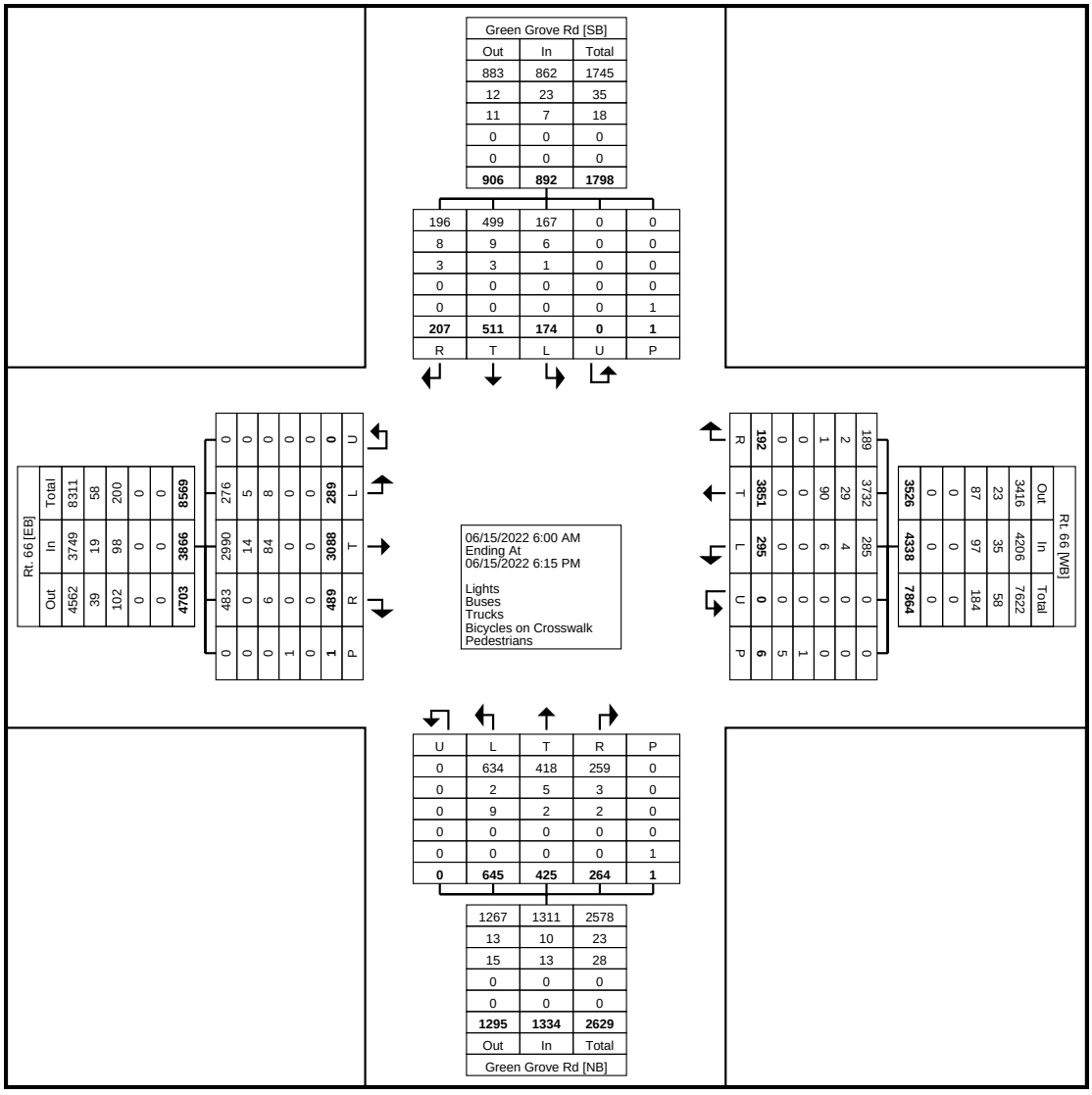
Neptune, NJ
Route 66 & Green Grove Rd
Wednesday, June 15, 2022
Location: 40.226571, -74.07336

Count Name: Rt. 66 & Green Grove Rd (6/15)
Site Code:
Start Date: 06/15/2022



Turning Movement Data Plot

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Neptune, NJ
Route 66 & Green Grove Rd
Wednesday, June 15, 2022
Location: 40.226571, -74.07336

Count Name: Rt. 66 & Green Grove Rd (6/15)
Site Code:
Start Date: 06/15/2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Rt. 66 Eastbound							Rt. 66 Westbound							Green Grove Rd Northbound							Green Grove Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
8:00 AM	22	142	14	2	0	0	180	14	160	5	2	0	0	181	22	17	9	2	0	0	50	10	16	3	6	0	0	35	446
8:15 AM	28	132	7	2	0	0	169	15	142	9	0	0	2	166	27	24	7	9	0	0	67	14	20	4	6	0	0	44	446
8:30 AM	20	154	16	3	0	0	193	15	154	13	1	0	1	183	36	23	4	2	0	0	65	10	17	7	5	0	1	39	480
8:45 AM	11	161	22	10	0	1	204	15	154	6	6	0	0	181	24	26	17	1	0	0	68	9	25	12	7	0	0	53	506
Total	81	589	59	17	0	1	746	59	610	33	9	0	3	711	109	90	37	14	0	0	250	43	78	26	24	0	1	171	1878
Approach %	10.9	79.0	7.9	2.3	0.0	-	-	8.3	85.8	4.6	1.3	0.0	-	-	43.6	36.0	14.8	5.6	0.0	-	-	25.1	45.6	15.2	14.0	0.0	-	-	-
Total %	4.3	31.4	3.1	0.9	0.0	-	39.7	3.1	32.5	1.8	0.5	0.0	-	37.9	5.8	4.8	2.0	0.7	0.0	-	13.3	2.3	4.2	1.4	1.3	0.0	-	9.1	-
PHF	0.723	0.915	0.670	0.425	0.000	-	0.914	0.983	0.953	0.635	0.375	0.000	-	0.971	0.757	0.865	0.544	0.389	0.000	-	0.919	0.768	0.780	0.542	0.857	0.000	-	0.807	0.928
Lights	74	550	59	16	0	-	699	56	585	31	9	0	-	681	107	89	35	14	0	-	245	39	74	22	21	0	-	156	1781
% Lights	91.4	93.4	100.0	94.1	-	-	93.7	94.9	95.9	93.9	100.0	-	-	95.8	98.2	98.9	94.6	100.0	-	-	98.0	90.7	94.9	84.6	87.5	-	-	91.2	94.8
Buses	2	3	0	0	0	-	5	0	11	2	0	0	-	13	0	0	2	0	0	-	2	4	4	3	2	0	-	13	33
% Buses	2.5	0.5	0.0	0.0	-	-	0.7	0.0	1.8	6.1	0.0	-	-	1.8	0.0	0.0	5.4	0.0	-	-	0.8	9.3	5.1	11.5	8.3	-	-	7.6	1.8
Trucks	5	36	0	1	0	-	42	3	14	0	0	0	-	17	2	1	0	0	0	-	3	0	0	1	1	0	-	2	64
% Trucks	6.2	6.1	0.0	5.9	-	-	5.6	5.1	2.3	0.0	0.0	-	-	2.4	1.8	1.1	0.0	0.0	-	-	1.2	0.0	0.0	3.8	4.2	-	-	1.2	3.4
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	100.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	3	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	0.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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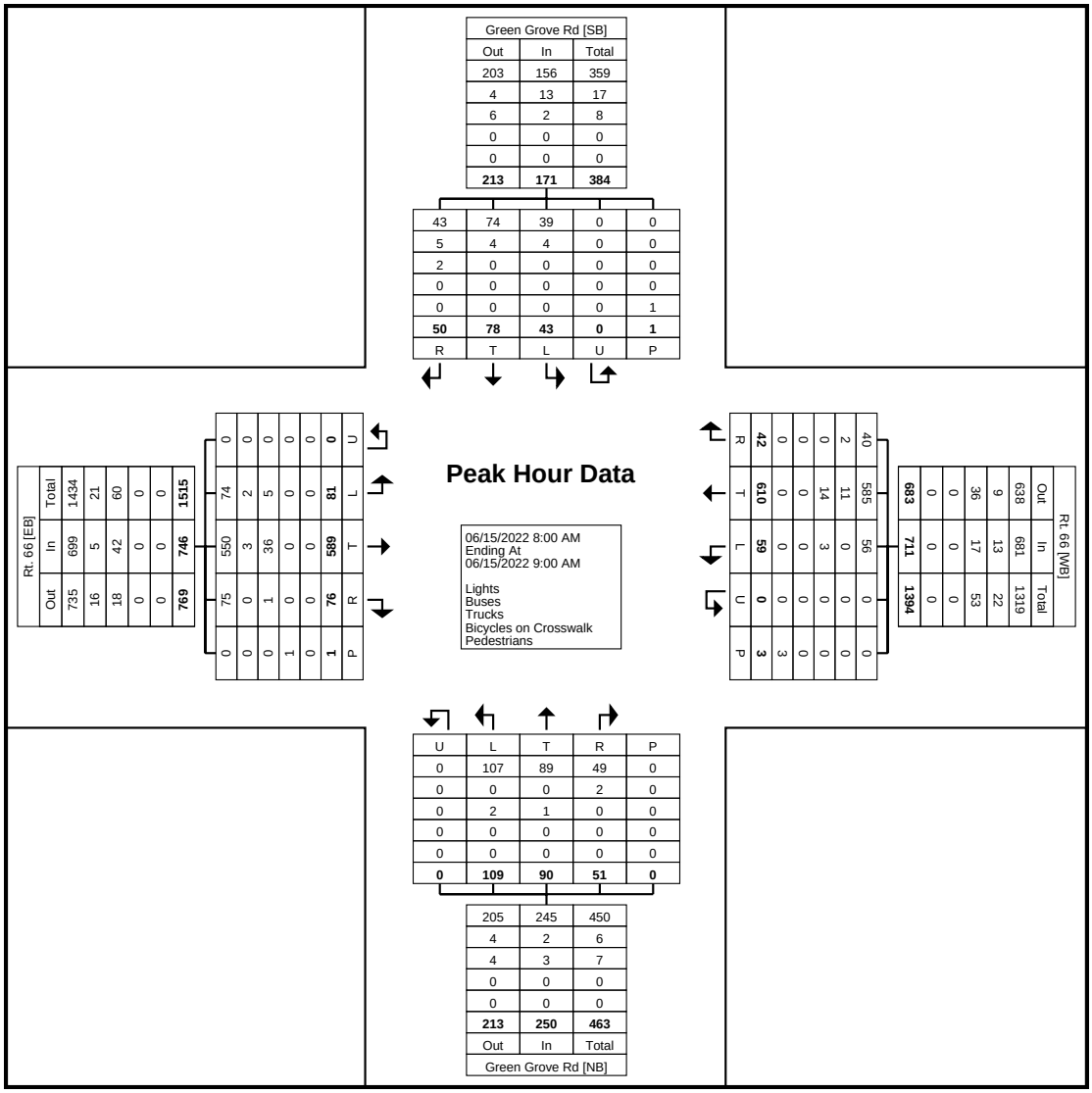
Neptune, NJ
Route 66 & Green Grove Rd
Wednesday, June 15, 2022
Location: 40.226571, -74.07336

Count Name: Rt. 66 & Green Grove Rd (6/15)
Site Code:
Start Date: 06/15/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

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Neptune, NJ
Route 66 & Green Grove Rd
Wednesday, June 15, 2022
Location: 40.226571, -74.07336

Count Name: Rt. 66 & Green Grove Rd (6/15)
Site Code:
Start Date: 06/15/2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Rt. 66 Eastbound							Rt. 66 Westbound							Green Grove Rd Northbound							Green Grove Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
4:00 PM	14	139	27	2	0	0	182	17	217	9	2	0	0	245	26	22	10	1	0	0	59	4	30	9	2	0	0	45	531
4:15 PM	9	137	17	8	0	0	171	24	195	5	3	0	0	227	28	19	9	1	0	0	57	7	33	4	4	0	0	48	503
4:30 PM	10	136	26	6	0	0	178	12	234	4	3	0	0	253	25	11	9	0	0	0	45	10	27	9	2	0	0	48	524
4:45 PM	16	152	28	2	0	0	198	13	236	5	1	0	0	255	23	16	8	3	0	0	50	10	38	3	6	0	0	57	560
Total	49	564	98	18	0	0	729	66	882	23	9	0	0	980	102	68	36	5	0	0	211	31	128	25	14	0	0	198	2118
Approach %	6.7	77.4	13.4	2.5	0.0	-	-	6.7	90.0	2.3	0.9	0.0	-	-	48.3	32.2	17.1	2.4	0.0	-	-	15.7	64.6	12.6	7.1	0.0	-	-	-
Total %	2.3	26.6	4.6	0.8	0.0	-	34.4	3.1	41.6	1.1	0.4	0.0	-	46.3	4.8	3.2	1.7	0.2	0.0	-	10.0	1.5	6.0	1.2	0.7	0.0	-	9.3	-
PHF	0.766	0.928	0.875	0.563	0.000	-	0.920	0.688	0.934	0.639	0.750	0.000	-	0.961	0.911	0.773	0.900	0.417	0.000	-	0.894	0.775	0.842	0.694	0.583	0.000	-	0.868	0.946
Lights	49	556	96	18	0	-	719	64	868	23	9	0	-	964	100	66	36	5	0	-	207	31	126	25	14	0	-	196	2086
% Lights	100.0	98.6	98.0	100.0	-	-	98.6	97.0	98.4	100.0	100.0	-	-	98.4	98.0	97.1	100.0	100.0	-	-	98.1	100.0	98.4	100.0	100.0	-	-	99.0	98.5
Buses	0	1	0	0	0	-	1	1	1	0	0	0	-	2	0	1	0	0	0	-	1	0	1	0	0	0	-	1	5
% Buses	0.0	0.2	0.0	0.0	-	-	0.1	1.5	0.1	0.0	0.0	-	-	0.2	0.0	1.5	0.0	0.0	-	-	0.5	0.0	0.8	0.0	0.0	-	-	0.5	0.2
Trucks	0	7	2	0	0	-	9	1	13	0	0	0	-	14	2	1	0	0	0	-	3	0	1	0	0	0	-	1	27
% Trucks	0.0	1.2	2.0	0.0	-	-	1.2	1.5	1.5	0.0	0.0	-	-	1.4	2.0	1.5	0.0	0.0	-	-	1.4	0.0	0.8	0.0	0.0	-	-	0.5	1.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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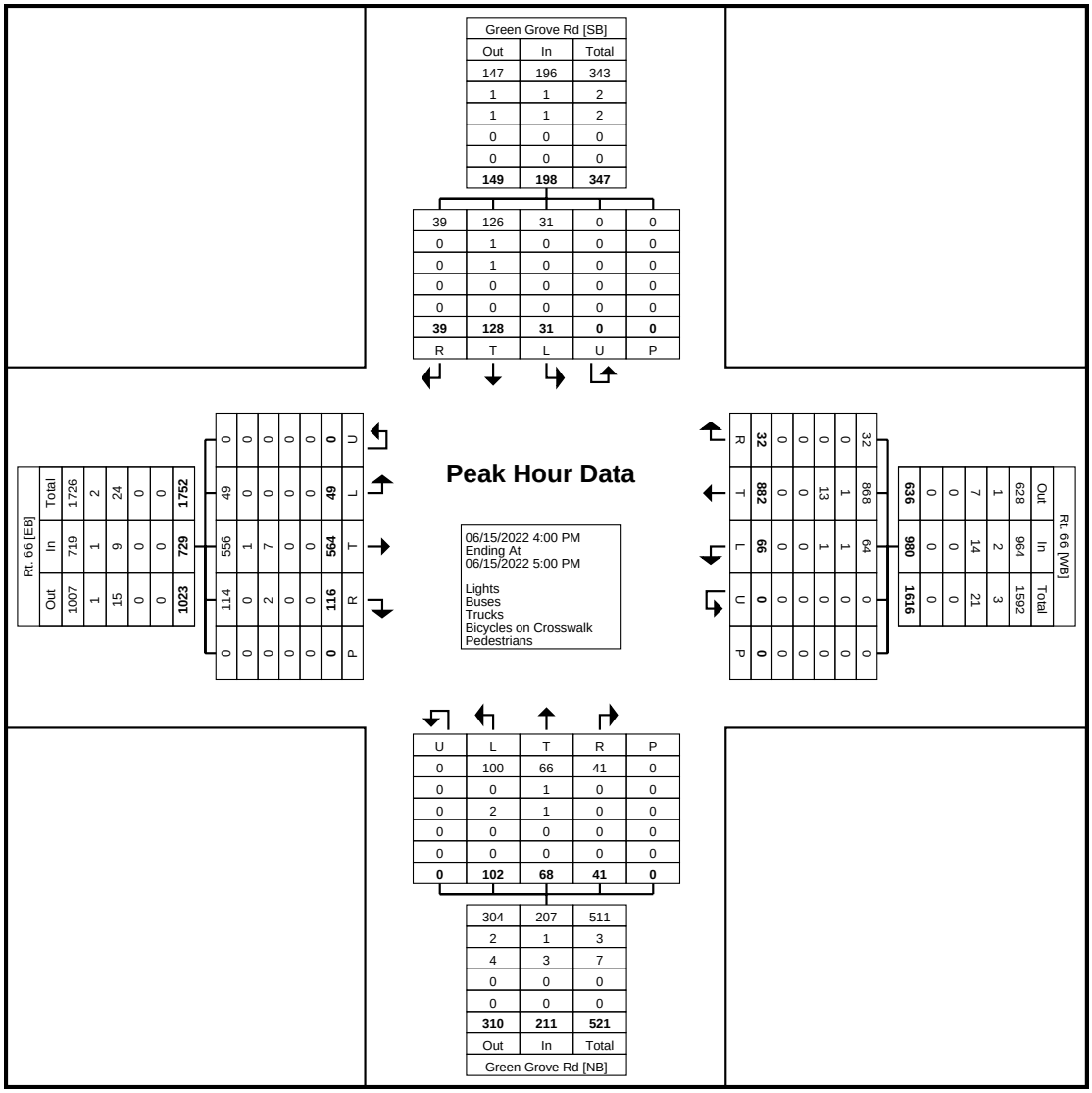
Neptune, NJ
Route 66 & Green Grove Rd
Wednesday, June 15, 2022
Location: 40.226571, -74.07336

Count Name: Rt. 66 & Green Grove Rd (6/15)
Site Code:
Start Date: 06/15/2022



Turning Movement Peak Hour Data Plot (4:00 PM)

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Neptune, NJ
Route 66 & Wawa Driveway
Wednesday, June 15, 2022
Location: 40.225462, -74.077039

Count Name: Rt. 66 & Wawa Driveway (6/15)
Site Code:
Start Date: 06/15/2022

Turning Movement Data

Start Time	Rt. 66 Eastbound					Rt. 66 Westbound					Wawa Driveway Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	31	7	0	0	38	15	42	0	0	57	5	10	0	0	15	110
6:15 AM	46	15	0	0	61	19	83	0	0	102	9	19	0	0	28	191
6:30 AM	62	13	0	0	75	18	101	0	0	119	14	21	0	0	35	229
6:45 AM	86	16	0	0	102	20	130	0	0	150	9	26	0	0	35	287
Hourly Total	225	51	0	0	276	72	356	0	0	428	37	76	0	0	113	817
7:00 AM	116	15	0	1	131	18	100	0	0	118	6	28	0	1	34	283
7:15 AM	131	22	0	0	153	22	111	0	0	133	10	38	0	1	48	334
7:30 AM	133	11	0	0	144	17	150	0	0	167	6	27	0	0	33	344
7:45 AM	133	18	0	0	151	17	140	0	0	157	10	25	0	0	35	343
Hourly Total	513	66	0	1	579	74	501	0	0	575	32	118	0	2	150	1304
8:00 AM	133	19	0	0	152	26	172	0	0	198	3	42	0	0	45	395
8:15 AM	148	22	0	0	170	19	161	0	0	180	3	38	0	1	41	391
8:30 AM	151	20	0	0	171	25	177	0	0	202	2	37	0	1	39	412
8:45 AM	160	15	0	0	175	16	176	0	0	192	9	37	0	0	46	413
Hourly Total	592	76	0	0	668	86	686	0	0	772	17	154	0	2	171	1611
9:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00 PM	150	20	0	0	170	18	249	1	0	268	7	29	0	1	36	474
3:15 PM	155	12	0	0	167	10	216	0	0	226	11	20	0	0	31	424
3:30 PM	177	15	0	0	192	12	244	1	0	257	0	25	0	0	25	474
3:45 PM	156	16	0	0	172	12	232	0	0	244	8	30	0	0	38	454
Hourly Total	638	63	0	0	701	52	941	2	0	995	26	104	0	1	130	1826
4:00 PM	165	20	0	0	185	19	233	0	0	252	3	21	0	0	24	461
4:15 PM	141	18	0	0	159	14	228	0	0	242	6	32	0	0	38	439
4:30 PM	154	15	0	0	169	16	239	0	0	255	8	21	0	0	29	453
4:45 PM	160	12	0	0	172	9	257	0	0	266	3	26	0	0	29	467
Hourly Total	620	65	0	0	685	58	957	0	0	1015	20	100	0	0	120	1820
5:00 PM	168	15	0	0	183	14	210	2	0	226	3	18	0	0	21	430
5:15 PM	154	11	1	0	166	11	216	0	0	227	4	28	0	1	32	425
5:30 PM	162	11	1	0	174	13	228	1	0	242	2	12	0	1	14	430
5:45 PM	149	9	0	0	158	12	220	1	0	233	6	18	0	0	24	415
Hourly Total	633	46	2	0	681	50	874	4	0	928	15	76	0	2	91	1700
Grand Total	3222	367	2	1	3591	392	4315	6	0	4713	147	628	0	7	775	9079
Approach %	89.7	10.2	0.1	-	-	8.3	91.6	0.1	-	-	19.0	81.0	0.0	-	-	-
Total %	35.5	4.0	0.0	-	39.6	4.3	47.5	0.1	-	51.9	1.6	6.9	0.0	-	8.5	-
Lights	3135	358	2	-	3495	380	4199	6	-	4585	144	598	0	-	742	8822
% Lights	97.3	97.5	100.0	-	97.3	96.9	97.3	100.0	-	97.3	98.0	95.2	-	-	95.7	97.2
Buses	11	2	0	-	13	3	35	0	-	38	0	5	0	-	5	56
% Buses	0.3	0.5	0.0	-	0.4	0.8	0.8	0.0	-	0.8	0.0	0.8	-	-	0.6	0.6
Trucks	76	7	0	-	83	9	81	0	-	90	3	25	0	-	28	201
% Trucks	2.4	1.9	0.0	-	2.3	2.3	1.9	0.0	-	1.9	2.0	4.0	-	-	3.6	2.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	42.9	-	-
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	4	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	57.1	-	-

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Coatesville, Pennsylvania, United States 19320
610-466-1469
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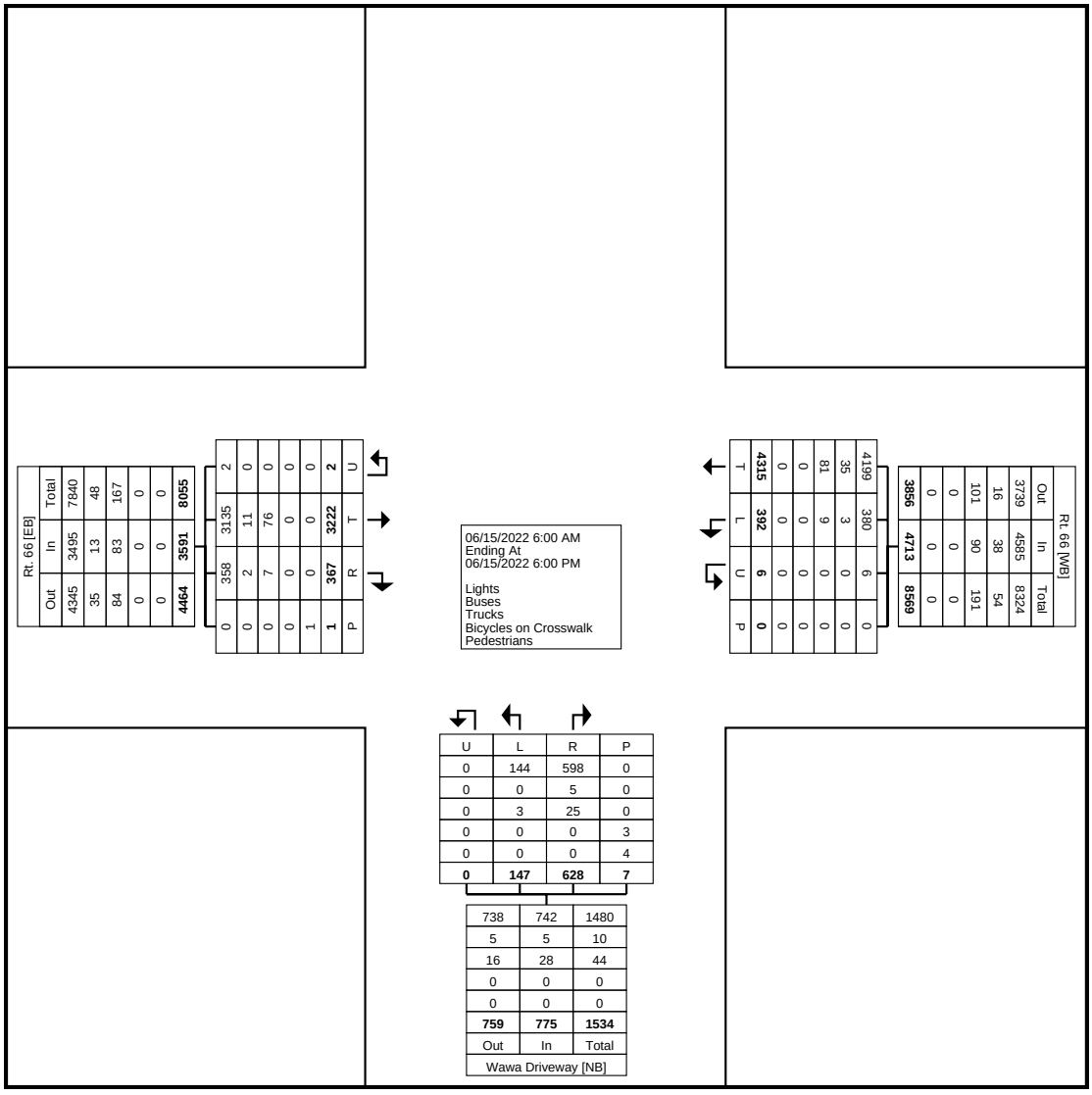
Neptune, NJ
Route 66 & Wawa Driveway
Wednesday, June 15, 2022
Location: 40.225462, -74.077039

Count Name: Rt. 66 & Wawa Driveway (6/15)
Site Code:
Start Date: 06/15/2022



Turning Movement Data Plot

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Neptune, NJ
Route 66 & Wawa Driveway
Wednesday, June 15, 2022
Location: 40.225462, -74.077039

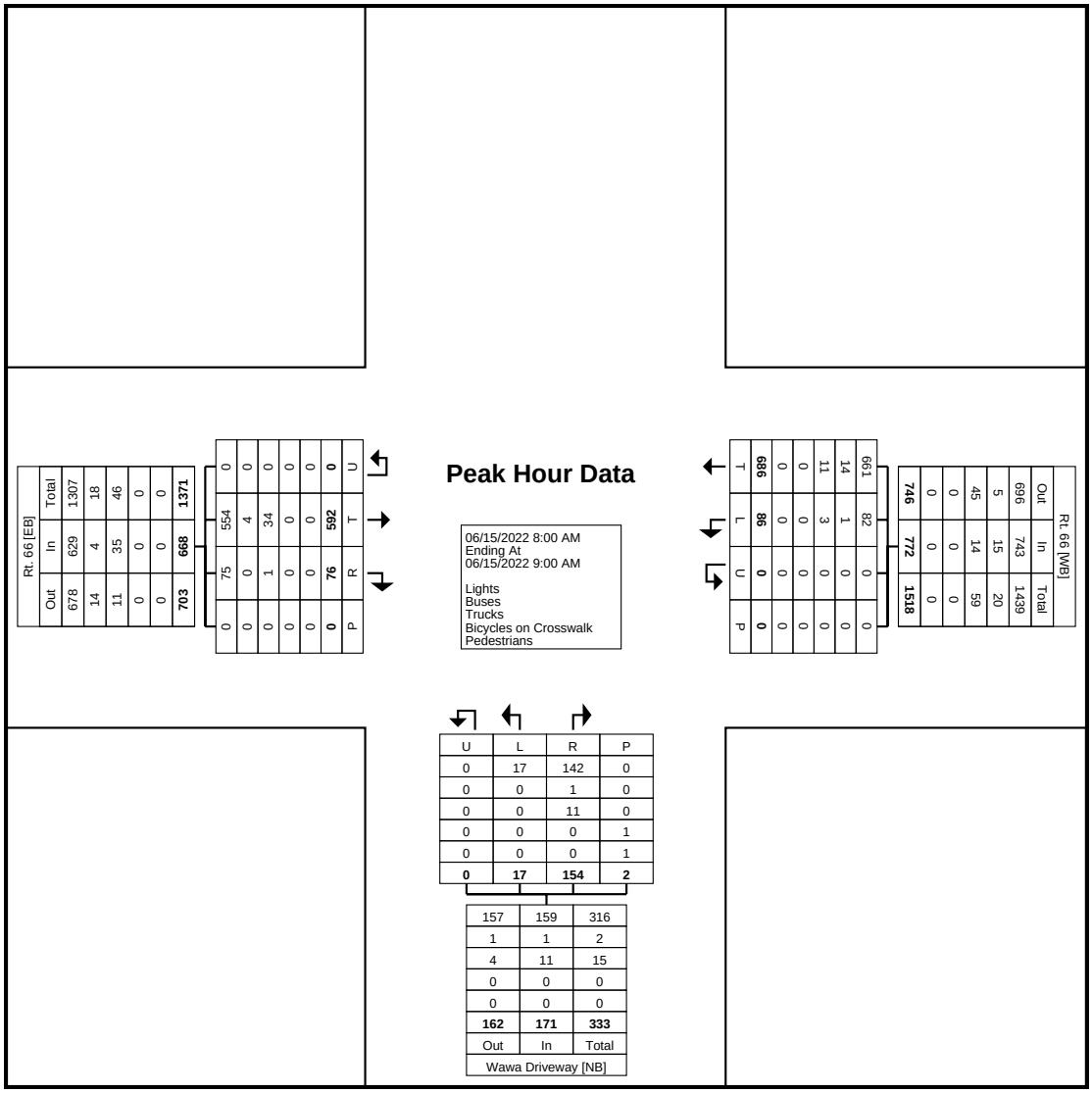
Count Name: Rt. 66 & Wawa Driveway (6/15)
Site Code:
Start Date: 06/15/2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Rt. 66 Eastbound					Rt. 66 Westbound					Wawa Driveway Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
8:00 AM	133	19	0	0	152	26	172	0	0	198	3	42	0	0	45	395
8:15 AM	148	22	0	0	170	19	161	0	0	180	3	38	0	1	41	391
8:30 AM	151	20	0	0	171	25	177	0	0	202	2	37	0	1	39	412
8:45 AM	160	15	0	0	175	16	176	0	0	192	9	37	0	0	46	413
Total	592	76	0	0	668	86	686	0	0	772	17	154	0	2	171	1611
Approach %	88.6	11.4	0.0	-	-	11.1	88.9	0.0	-	-	9.9	90.1	0.0	-	-	-
Total %	36.7	4.7	0.0	-	41.5	5.3	42.6	0.0	-	47.9	1.1	9.6	0.0	-	10.6	-
PHF	0.925	0.864	0.000	-	0.954	0.827	0.969	0.000	-	0.955	0.472	0.917	0.000	-	0.929	0.975
Lights	554	75	0	-	629	82	661	0	-	743	17	142	0	-	159	1531
% Lights	93.6	98.7	-	-	94.2	95.3	96.4	-	-	96.2	100.0	92.2	-	-	93.0	95.0
Buses	4	0	0	-	4	1	14	0	-	15	0	1	0	-	1	20
% Buses	0.7	0.0	-	-	0.6	1.2	2.0	-	-	1.9	0.0	0.6	-	-	0.6	1.2
Trucks	34	1	0	-	35	3	11	0	-	14	0	11	0	-	11	60
% Trucks	5.7	1.3	-	-	5.2	3.5	1.6	-	-	1.8	0.0	7.1	-	-	6.4	3.7
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-

Neptune, NJ
Route 66 & Wawa Driveway
Wednesday, June 15, 2022
Location: 40.225462, -74.077039

Count Name: Rt. 66 & Wawa Driveway (6/15)
Site Code:
Start Date: 06/15/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

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184 Baker Rd

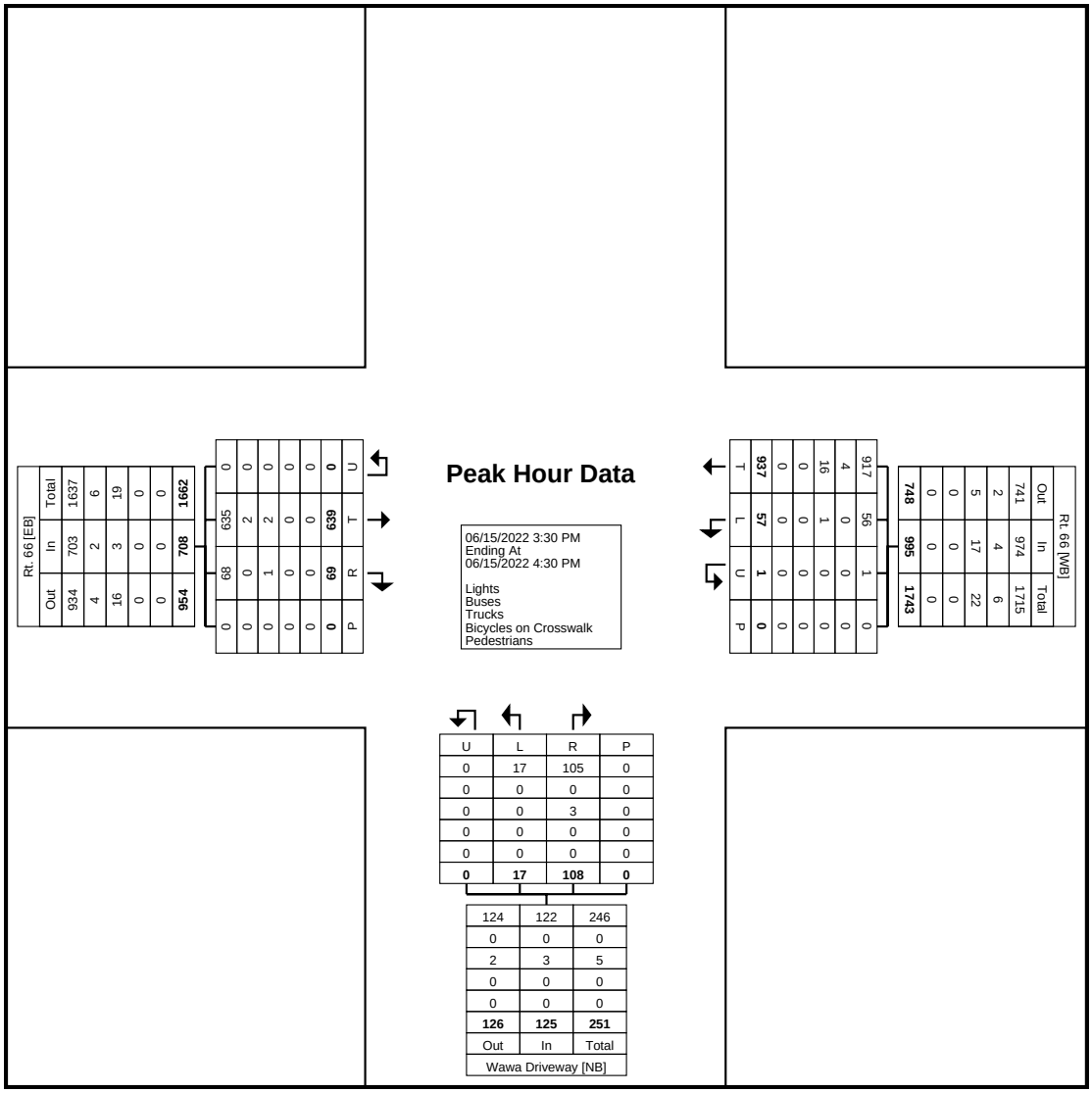
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Neptune, NJ
Route 66 & Wawa Driveway
Wednesday, June 15, 2022
Location: 40.225462, -74.077039

Count Name: Rt. 66 & Wawa Driveway (6/15)
Site Code:
Start Date: 06/15/2022

Turning Movement Peak Hour Data (3:30 PM)

Start Time	Rt. 66 Eastbound					Rt. 66 Westbound					Wawa Driveway Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
3:30 PM	177	15	0	0	192	12	244	1	0	257	0	25	0	0	25	474
3:45 PM	156	16	0	0	172	12	232	0	0	244	8	30	0	0	38	454
4:00 PM	165	20	0	0	185	19	233	0	0	252	3	21	0	0	24	461
4:15 PM	141	18	0	0	159	14	228	0	0	242	6	32	0	0	38	439
Total	639	69	0	0	708	57	937	1	0	995	17	108	0	0	125	1828
Approach %	90.3	9.7	0.0	-	-	5.7	94.2	0.1	-	-	13.6	86.4	0.0	-	-	-
Total %	35.0	3.8	0.0	-	38.7	3.1	51.3	0.1	-	54.4	0.9	5.9	0.0	-	6.8	-
PHF	0.903	0.863	0.000	-	0.922	0.750	0.960	0.250	-	0.968	0.531	0.844	0.000	-	0.822	0.964
Lights	635	68	0	-	703	56	917	1	-	974	17	105	0	-	122	1799
% Lights	99.4	98.6	-	-	99.3	98.2	97.9	100.0	-	97.9	100.0	97.2	-	-	97.6	98.4
Buses	2	0	0	-	2	0	4	0	-	4	0	0	0	-	0	6
% Buses	0.3	0.0	-	-	0.3	0.0	0.4	0.0	-	0.4	0.0	0.0	-	-	0.0	0.3
Trucks	2	1	0	-	3	1	16	0	-	17	0	3	0	-	3	23
% Trucks	0.3	1.4	-	-	0.4	1.8	1.7	0.0	-	1.7	0.0	2.8	-	-	2.4	1.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (3:30 PM)

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

Road: Rt. 66
Location: 110 ft E of Wawa Driveway
Counter: 35896

Site Code: 1
Station ID: 1
A to B EB
Latitude: 40' 22554.0000 North
Longitude: 74' 7672.0000 West

Start	Tuesday, June 14, 2022		Wednesday, June 15, 2022		Thursday, June 16, 2022		Friday, June 17, 2022		Saturday, June 18, 2022		Sunday, June 19, 2022		Monday, June 20, 2022		Week Average	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	65	64	71	60	76	88	120	137	140	161	73	63	91	96
01:00	*	*	36	41	30	42	47	55	63	98	74	103	28	44	46	64
02:00	*	*	24	36	27	31	42	45	51	66	74	90	25	26	40	49
03:00	*	*	36	30	27	29	25	38	47	67	48	48	40	32	37	41
04:00	*	*	49	66	51	67	52	78	43	74	29	46	49	66	46	66
05:00	*	*	133	156	125	149	136	161	59	103	53	74	102	148	101	132
06:00	*	*	303	404	293	390	266	399	173	239	106	153	287	332	238	320
07:00	*	*	626	543	570	520	542	511	309	338	182	239	503	416	455	428
08:00	*	*	**664**	**653**	**616**	644	624	619	510	499	316	409	576	454	551	546
09:00	*	*	624	562	580	550	616	594	562	592	507	531	585	550	579	563
10:00	*	*	586	650	597	622	**626**	**670**	**616**	**669**	565	606	590	**588**	**597**	**634**
11:00	**628**	**675**	612	645	595	**709**	515	511	573	568	**636**	**634**	**612**	568	596	616
12:00 PM	645	676	644	695	605	751	590	575	600	**686**	592	654	540	487	602	646
01:00	660	704	658	781	631	767	**652**	669	588	586	624	703	529	543	620	679
02:00	666	715	589	701	670	744	618	692	574	588	**644**	**737**	519	573	611	679
03:00	642	790	**678**	867	681	819	578	716	387	295	640	664	544	597	593	678
04:00	**713**	**847**	658	**905**	672	**842**	652	**788**	610	664	581	642	**586**	**685**	**639**	**768**
05:00	646	736	626	803	**694**	797	606	655	**632**	647	504	522	554	684	609	692
06:00	588	684	562	603	604	635	559	652	509	589	473	478	559	649	551	613
07:00	505	533	530	572	501	546	520	579	444	514	424	439	498	563	489	535
08:00	420	475	439	517	431	468	500	494	423	416	382	438	406	427	429	462
09:00	317	366	288	371	319	352	371	415	354	378	281	326	337	373	324	369
10:00	202	217	202	222	236	255	296	318	287	329	178	230	230	217	233	255
11:00	130	106	156	143	144	132	227	246	213	235	137	120	146	107	165	156
Total	6762	7524	9788	11030	9770	10921	9736	10568	8747	9377	8190	9047	8918	9192	9242	10087
Day	14286		20818		20691		20304		18124		17237		18110		19329	
AM Peak	11:00	11:00	08:00	08:00	08:00	11:00	10:00	10:00	10:00	10:00	11:00	11:00	11:00	10:00	10:00	10:00
Vol.	628	675	664	653	616	709	626	670	616	669	636	634	612	588	597	634
PM Peak	16:00	16:00	15:00	16:00	17:00	16:00	13:00	16:00	17:00	12:00	14:00	14:00	16:00	16:00	16:00	16:00
Vol.	713	847	678	905	694	842	652	788	632	686	644	737	586	685	639	768

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

Road: Rt. 66
Location: 110 ft E of Wawa Driveway
Counter: 35896

Site Code: 1
Station ID: 1
A to B EB
Latitude: 40' 22554.0000 North
Longitude: 74' 7672.0000 West

Start	Tuesday, June 21, 2022		Wednesday, June 22, 2022		Thursday, June 23, 2022		Friday, June 24, 2022		Saturday, June 25, 2022		Sunday, June 26, 2022		Monday, June 27, 2022		Week Average	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	57	56	75	69	*	*	*	*	*	*	*	*	*	*	66	62
01:00	41	52	30	36	*	*	*	*	*	*	*	*	*	*	36	44
02:00	23	25	40	36	*	*	*	*	*	*	*	*	*	*	32	30
03:00	32	28	39	26	*	*	*	*	*	*	*	*	*	*	36	27
04:00	57	68	54	84	*	*	*	*	*	*	*	*	*	*	56	76
05:00	138	152	121	159	*	*	*	*	*	*	*	*	*	*	130	156
06:00	268	354	283	325	*	*	*	*	*	*	*	*	*	*	276	340
07:00	547	502	540	474	*	*	*	*	*	*	*	*	*	*	544	488
08:00	574	466	534	395	*	*	*	*	*	*	*	*	*	*	554	430
09:00	545	477	**551**	**504**	*	*	*	*	*	*	*	*	*	*	548	490
10:00	549	499	*	*	*	*	*	*	*	*	*	*	*	*	549	499
11:00	**619**	**605**	*	*	*	*	*	*	*	*	*	*	*	*	**619**	**605**
12:00 PM	**615**	596	*	*	*	*	*	*	*	*	*	*	*	*	**615**	596
01:00	588	645	*	*	*	*	*	*	*	*	*	*	*	*	588	645
02:00	573	624	*	*	*	*	*	*	*	*	*	*	*	*	573	624
03:00	599	616	*	*	*	*	*	*	*	*	*	*	*	*	599	616
04:00	598	**655**	*	*	*	*	*	*	*	*	*	*	*	*	598	**655**
05:00	583	604	*	*	*	*	*	*	*	*	*	*	*	*	583	604
06:00	581	530	*	*	*	*	*	*	*	*	*	*	*	*	581	530
07:00	460	461	*	*	*	*	*	*	*	*	*	*	*	*	460	461
08:00	361	413	*	*	*	*	*	*	*	*	*	*	*	*	361	413
09:00	263	310	*	*	*	*	*	*	*	*	*	*	*	*	263	310
10:00	196	227	*	*	*	*	*	*	*	*	*	*	*	*	196	227
11:00	117	110	*	*	*	*	*	*	*	*	*	*	*	*	117	110
Total	8984	9075	2267	2108	0	0	0	0	0	0	0	0	0	0	8980	9038
Day	18059		4375		0		0		0		0		0		18018	
AM Peak	11:00	11:00	09:00	09:00	-	-	-	-	-	-	-	-	-	-	11:00	11:00
Vol.	619	605	551	504	-	-	-	-	-	-	-	-	-	-	619	605
PM Peak	12:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	12:00	16:00
Vol.	615	655	-	-	-	-	-	-	-	-	-	-	-	-	615	655

Comb. Total	32345	25193	20691	20304	18124	17237	18110	37347
ADT	ADT 19,148	AADT 19,148						

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

Road: Green Grove Rd
Location: 670 ft N of Rt. 66
Counter: 35219

Site Code: 2
Station ID:
A to B NB
Latitude: 40' 13.6899 North
Longitude: 74' 4.4733 West

Start	Tuesday, June 14, 2022		Wednesday, June 15, 2022		Thursday, June 16, 2022		Friday, June 17, 2022		Saturday, June 18, 2022		Sunday, June 19, 2022		Monday, June 20, 2022		Week Average	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	18	9	12	10	9	13	27	19	41	28	15	10	20	15
01:00	*	*	9	1	4	7	5	12	15	14	30	20	15	8	13	10
02:00	*	*	7	5	7	5	3	3	16	9	15	12	1	4	8	6
03:00	*	*	8	4	6	5	6	1	10	5	9	3	7	4	8	4
04:00	*	*	8	8	11	13	10	11	11	7	5	6	14	12	10	10
05:00	*	*	40	13	28	17	24	16	14	11	13	11	20	13	23	14
06:00	*	*	68	49	72	43	68	53	31	25	28	22	54	41	54	39
07:00	*	*	138	113	136	95	105	85	56	50	41	38	105	83	97	77
08:00	*	*	**207**	**170**	**178**	**158**	**145**	117	86	66	46	53	125	**130**	131	116
09:00	*	*	148	104	146	111	126	113	109	106	75	81	**139**	101	124	103
10:00	*	*	114	87	106	102	128	111	113	109	96	106	107	105	111	103
11:00	*	*	128	140	117	126	141	**128**	**158**	**117**	**127**	**120**	119	108	**132**	**123**
12:00 PM	126	112	135	141	**165**	123	143	129	127	**157**	**139**	104	155	139	141	129
01:00	139	103	139	169	160	**215**	150	162	133	124	138	129	**181**	150	149	150
02:00	**167**	171	162	165	145	178	145	162	137	139	138	**136**	140	115	148	152
03:00	152	**214**	**175**	182	134	174	166	149	**171**	147	119	119	143	143	**151**	**161**
04:00	156	183	148	**185**	127	149	**190**	**166**	143	132	113	105	166	152	149	153
05:00	153	200	161	184	152	175	170	142	124	128	92	98	179	**190**	147	160
06:00	112	121	125	166	128	114	121	133	144	115	106	91	129	109	124	121
07:00	89	105	114	106	85	108	121	109	103	84	107	86	112	110	104	101
08:00	86	101	79	90	65	83	118	103	99	83	89	101	78	78	88	91
09:00	68	54	69	66	55	63	87	88	87	65	67	76	56	70	70	69
10:00	41	30	37	30	50	36	70	67	64	50	46	40	35	38	49	42
11:00	29	36	32	30	30	35	49	43	57	51	38	31	27	27	37	36
Total	1318	1430	2269	2217	2119	2145	2300	2116	2035	1813	1718	1616	2122	1940	2088	1985
Day	2748		4486		4264		4416		3848		3334		4062		4073	
AM Peak	-	-	08:00	08:00	08:00	08:00	08:00	11:00	11:00	11:00	11:00	11:00	09:00	08:00	11:00	11:00
Vol.	-	-	207	170	178	158	145	128	158	117	127	120	139	130	132	123
PM Peak	14:00	15:00	15:00	16:00	12:00	13:00	16:00	16:00	15:00	12:00	12:00	14:00	13:00	17:00	15:00	15:00
Vol.	167	214	175	185	165	215	190	166	171	157	139	136	181	190	151	161

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

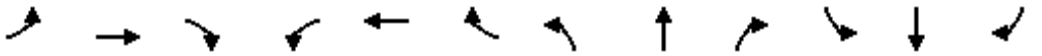
Road: Green Grove Rd
Location: 670 ft N of Rt. 66
Counter: 35219

Site Code: 2
Station ID:
A to B NB
Latitude: 40' 13.6899 North
Longitude: 74' 4.4733 West

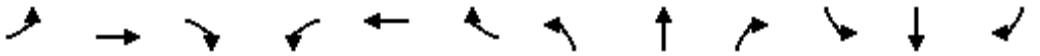
Start	Tuesday, June 21, 2022		Wednesday, June 22, 2022		Thursday, June 23, 2022		Friday, June 24, 2022		Saturday, June 25, 2022		Sunday, June 26, 2022		Monday, June 27, 2022		Week Average	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	15	12	14	15	*	*	*	*	*	*	*	*	*	*	14	14
01:00	8	6	6	9	*	*	*	*	*	*	*	*	*	*	7	8
02:00	5	2	6	3	*	*	*	*	*	*	*	*	*	*	6	2
03:00	6	1	4	1	*	*	*	*	*	*	*	*	*	*	5	1
04:00	10	10	11	14	*	*	*	*	*	*	*	*	*	*	10	12
05:00	23	12	27	13	*	*	*	*	*	*	*	*	*	*	25	12
06:00	72	49	69	50	*	*	*	*	*	*	*	*	*	*	70	50
07:00	111	108	109	86	*	*	*	*	*	*	*	*	*	*	110	97
08:00	**170**	**152**	**165**	**150**	*	*	*	*	*	*	*	*	*	*	**168**	**151**
09:00	132	103	134	116	*	*	*	*	*	*	*	*	*	*	133	110
10:00	108	93	*	*	*	*	*	*	*	*	*	*	*	*	108	93
11:00	106	91	*	*	*	*	*	*	*	*	*	*	*	*	106	91
12:00 PM	143	134	*	*	*	*	*	*	*	*	*	*	*	*	143	134
01:00	**180**	149	*	*	*	*	*	*	*	*	*	*	*	*	**180**	149
02:00	152	148	*	*	*	*	*	*	*	*	*	*	*	*	152	148
03:00	122	160	*	*	*	*	*	*	*	*	*	*	*	*	122	160
04:00	140	**173**	*	*	*	*	*	*	*	*	*	*	*	*	140	**173**
05:00	178	168	*	*	*	*	*	*	*	*	*	*	*	*	178	168
06:00	115	134	*	*	*	*	*	*	*	*	*	*	*	*	115	134
07:00	97	100	*	*	*	*	*	*	*	*	*	*	*	*	97	100
08:00	67	78	*	*	*	*	*	*	*	*	*	*	*	*	67	78
09:00	46	50	*	*	*	*	*	*	*	*	*	*	*	*	46	50
10:00	28	32	*	*	*	*	*	*	*	*	*	*	*	*	28	32
11:00	26	30	*	*	*	*	*	*	*	*	*	*	*	*	26	30
Total	2060	1995	545	457	0	0	0	0	0	0	0	0	0	0	2056	1997
Day	4055		1002		0		0		0		0		0		4053	
AM Peak	08:00	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	08:00	08:00
Vol.	170	152	165	150	-	-	-	-	-	-	-	-	-	-	168	151
PM Peak	13:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	13:00	16:00
Vol.	180	173	-	-	-	-	-	-	-	-	-	-	-	-	180	173

Comb. Total	6803	5488	4264	4416	3848	3334	4062	8126
ADT	ADT 4,083	AADT 4,083						

APPENDIX D
CAPACITY ANALYSIS PRINTOUTS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	611	79	61	645	63	120	105	55	50	85	56
Future Volume (vph)	99	611	79	61	645	63	120	105	55	50	85	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	120		0	175		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	70			70			70			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.987			0.949			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1772	0	1719	1805	0	1770	1767	0	1671	1651	0
Flt Permitted	0.278			0.156			0.661			0.454		
Satd. Flow (perm)	494	1772	0	282	1805	0	1231	1767	0	799	1651	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			8			24			35	
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		369			525			416			197	
Travel Time (s)		5.0			7.2			11.3			5.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	6%	1%	5%	4%	3%	2%	1%	4%	8%	5%	13%
Adj. Flow (vph)	106	657	85	66	694	68	129	113	59	54	91	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	742	0	66	762	0	129	172	0	54	151	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		50			40			50			50	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	

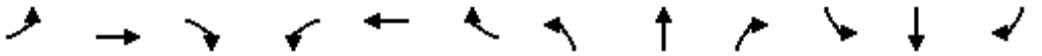


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	45.0	45.0		8.0	56.0		8.0	8.0		8.0	19.0	
Minimum Split (s)	52.0	52.0		11.0	63.0		13.0	13.0		11.0	24.0	
Total Split (s)	52.0	52.0		11.0	63.0		26.0	26.0		11.0	37.0	
Total Split (%)	52.0%	52.0%		11.0%	63.0%		26.0%	26.0%		11.0%	37.0%	
Maximum Green (s)	45.0	45.0		8.0	56.0		21.0	21.0		8.0	32.0	
Yellow Time (s)	5.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		3.0	7.0		5.0	5.0		3.0	5.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	47.5	47.5		60.1	56.1		17.8	17.8		28.5	26.5	
Actuated g/C Ratio	0.50	0.50		0.64	0.59		0.19	0.19		0.30	0.28	
v/c Ratio	0.43	0.83		0.22	0.71		0.56	0.49		0.17	0.31	
Control Delay	24.9	32.3		9.4	19.0		45.8	35.2		24.6	21.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.9	32.3		9.4	19.0		45.8	35.2		24.6	21.8	
LOS	C	C		A	B		D	D		C	C	
Approach Delay		31.3			18.2			39.8			22.5	
Approach LOS		C			B			D			C	
90th %ile Green (s)	45.0	45.0		8.0	56.0		21.0	21.0		8.0	32.0	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
70th %ile Green (s)	45.0	45.0		8.0	56.0		20.1	20.1		8.0	31.1	
70th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
50th %ile Green (s)	45.0	45.0		8.0	56.0		16.0	16.0		8.0	27.0	
50th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
30th %ile Green (s)	45.0	45.0		8.0	56.0		13.1	13.1		8.0	24.1	
30th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
10th %ile Green (s)	56.0	56.0		0.0	56.0		19.0	19.0		0.0	19.0	
10th %ile Term Code	Hold	Hold		Skip	Max		Hold	Hold		Skip	Min	
Stops (vph)	68	535		23	488		106	120		33	79	
Fuel Used(gal)	2	15		1	16		3	3		1	2	
CO Emissions (g/hr)	132	1055		65	1095		181	212		44	114	
NOx Emissions (g/hr)	26	205		13	213		35	41		9	22	
VOC Emissions (g/hr)	30	244		15	254		42	49		10	26	
Dilemma Vehicles (#)	0	33		0	37		0	0		0	0	
Queue Length 50th (ft)	41	386		14	299		73	82		23	54	
Queue Length 95th (ft)	103	#679		33	503		134	147		51	105	
Internal Link Dist (ft)		289			445			336			117	
Turn Bay Length (ft)	120			120			175			40		
Base Capacity (vph)	248	893		301	1074		273	411		314	582	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.43	0.83		0.22	0.71		0.47	0.42		0.17	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 94.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 118.9%		ICU Level of Service H	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 99.1			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 92.1			
10th %ile Actuated Cycle: 87			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Green Grove Road & NJ Route 66



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	614	79	61	649	44	121	97	55	52	87	54
Future Volume (vph)	100	614	79	61	649	44	121	97	55	52	87	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	120		0	175		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	70			70			70			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.991			0.946			0.943	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1757	0	1719	1809	0	1770	1761	0	1671	1658	0
Flt Permitted	0.292			0.154			0.660			0.471		
Satd. Flow (perm)	519	1757	0	279	1809	0	1229	1761	0	829	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			6			26			33	
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		369			525			416			197	
Travel Time (s)		5.0			7.2			11.3			5.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	7%	1%	5%	4%	5%	2%	1%	4%	8%	5%	13%
Adj. Flow (vph)	108	660	85	66	698	47	130	104	59	56	94	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	745	0	66	745	0	130	163	0	56	152	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		50			40			50			50	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	45.0	45.0		8.0	56.0		8.0	8.0		8.0	19.0	
Minimum Split (s)	52.0	52.0		11.0	63.0		13.0	13.0		11.0	24.0	
Total Split (s)	52.0	52.0		11.0	63.0		26.0	26.0		11.0	37.0	
Total Split (%)	52.0%	52.0%		11.0%	63.0%		26.0%	26.0%		11.0%	37.0%	
Maximum Green (s)	45.0	45.0		8.0	56.0		21.0	21.0		8.0	32.0	
Yellow Time (s)	5.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		3.0	7.0		5.0	5.0		3.0	5.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	47.5	47.5		60.1	56.1		17.7	17.7		28.3	26.3	
Actuated g/C Ratio	0.50	0.50		0.64	0.59		0.19	0.19		0.30	0.28	
v/c Ratio	0.42	0.84		0.22	0.69		0.57	0.47		0.17	0.31	
Control Delay	24.0	32.9		9.4	18.3		46.3	34.0		24.7	22.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.0	32.9		9.4	18.3		46.3	34.0		24.7	22.3	
LOS	C	C		A	B		D	C		C	C	
Approach Delay		31.8			17.6			39.5			22.9	
Approach LOS		C			B			D			C	
90th %ile Green (s)	45.0	45.0		8.0	56.0		21.0	21.0		8.0	32.0	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
70th %ile Green (s)	45.0	45.0		8.0	56.0		19.2	19.2		8.0	30.2	
70th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
50th %ile Green (s)	45.0	45.0		8.0	56.0		16.1	16.1		8.0	27.1	
50th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
30th %ile Green (s)	45.0	45.0		8.0	56.0		13.2	13.2		8.0	24.2	
30th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
10th %ile Green (s)	56.0	56.0		0.0	56.0		19.0	19.0		0.0	19.0	
10th %ile Term Code	Hold	Hold		Skip	Max		Hold	Hold		Skip	Min	
Stops (vph)	69	538		23	469		109	111		35	83	
Fuel Used(gal)	2	15		1	15		3	3		1	1	
CO Emissions (g/hr)	129	1044		65	1055		184	198		40	99	
NOx Emissions (g/hr)	25	203		13	205		36	39		8	19	
VOC Emissions (g/hr)	30	242		15	244		43	46		9	23	
Dilemma Vehicles (#)	0	34		0	36		0	0		0	0	
Queue Length 50th (ft)	42	392		14	289		74	75		24	55	
Queue Length 95th (ft)	102	#688		33	483		135	138		52	107	
Internal Link Dist (ft)		289			445			336			117	
Turn Bay Length (ft)	120			120			175			40		
Base Capacity (vph)	260	887		299	1077		273	412		320	584	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.42	0.84		0.22	0.69		0.48	0.40		0.17	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 94.5			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 119.8%		ICU Level of Service H	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 98.2			
50th %ile Actuated Cycle: 95.1			
30th %ile Actuated Cycle: 92.2			
10th %ile Actuated Cycle: 87			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Green Grove Road & NJ Route 66

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	673	76	86	720	3	17	0	154	0	0	1
Future Vol, veh/h	6	673	76	86	720	3	17	0	154	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	6	1	5	3	0	0	0	8	0	0	0
Mvmt Flow	6	687	78	88	735	3	17	0	157	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	738	0	0	765	0	0	1651	1652	726	1651	1690	737
Stage 1	-	-	-	-	-	-	738	738	-	913	913	-
Stage 2	-	-	-	-	-	-	913	914	-	738	777	-
Critical Hdwy	4.1	-	-	4.15	-	-	7.1	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.245	-	-	3.5	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	877	-	-	835	-	-	80	100	415	80	94	422
Stage 1	-	-	-	-	-	-	413	427	-	330	355	-
Stage 2	-	-	-	-	-	-	330	355	-	413	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	877	-	-	835	-	-	68	81	415	42	76	422
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	81	-	42	76	-
Stage 1	-	-	-	-	-	-	408	422	-	326	291	-
Stage 2	-	-	-	-	-	-	270	291	-	254	405	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1	17.5	13.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	461	877	-	-	835	-	-	422
HCM Lane V/C Ratio	0.379	0.007	-	-	0.105	-	-	0.002
HCM Control Delay (s)	17.5	9.1	0	-	9.8	0	-	13.6
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.7	0	-	-	0.4	-	-	0

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	633	76	86	713	13	17	0	154	0	0	16
Future Vol, veh/h	0	633	76	86	713	13	17	0	154	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	6	1	5	4	23	0	0	8	0	0	13
Mvmt Flow	0	646	78	88	728	13	17	0	157	0	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	724	0	0	1604	1602	685	-	-	735
Stage 1	-	-	-	-	-	-	685	685	-	-	-	-
Stage 2	-	-	-	-	-	-	919	917	-	-	-	-
Critical Hdwy	-	-	-	4.15	-	-	7.1	6.5	6.28	-	-	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.245	-	-	3.5	4	3.372	-	-	3.417
Pot Cap-1 Maneuver	0	-	-	865	-	-	86	107	438	0	0	402
Stage 1	0	-	-	-	-	-	441	451	-	0	0	-
Stage 2	0	-	-	-	-	-	328	354	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	865	-	-	72	88	438	-	-	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	88	-	-	-	-
Stage 1	-	-	-	-	-	-	441	451	-	-	-	-
Stage 2	-	-	-	-	-	-	260	293	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	16.5	14.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	486	-	-	865	-	-	402
HCM Lane V/C Ratio	0.359	-	-	0.101	-	-	0.041
HCM Control Delay (s)	16.5	-	-	9.6	0	-	14.3
HCM Lane LOS	C	-	-	A	A	-	B
HCM 95th %tile Q(veh)	1.6	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	44	780	2	9	799	9	2	0	7	0	0	6
Future Vol, veh/h	44	780	2	9	799	9	2	0	7	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	6	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	45	796	2	9	815	9	2	0	7	0	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	824	0	0	798	0	0	1728	1729	797	1729	1726	820
Stage 1	-	-	-	-	-	-	887	887	-	838	838	-
Stage 2	-	-	-	-	-	-	841	842	-	891	888	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	815	-	-	833	-	-	70	89	390	70	90	378
Stage 1	-	-	-	-	-	-	341	365	-	364	384	-
Stage 2	-	-	-	-	-	-	362	383	-	340	365	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	815	-	-	833	-	-	63	79	390	63	79	378
Mov Cap-2 Maneuver	-	-	-	-	-	-	63	79	-	63	79	-
Stage 1	-	-	-	-	-	-	307	329	-	328	376	-
Stage 2	-	-	-	-	-	-	349	375	-	301	329	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	26	14.7
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	181	815	-	-	833	-	-	378
HCM Lane V/C Ratio	0.051	0.055	-	-	0.011	-	-	0.016
HCM Control Delay (s)	26	9.7	0	-	9.4	0	-	14.7
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	784	2	9	807	4	2	0	7	0	0	1
Future Vol, veh/h	0	784	2	9	807	4	2	0	7	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	7	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	0	800	2	9	823	4	2	0	7	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	802	0	0	1645	1646	801	-	-	825
Stage 1	-	-	-	-	-	-	801	801	-	-	-	-
Stage 2	-	-	-	-	-	-	844	845	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.1	6.5	6.2	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	830	-	-	80	100	388	0	0	376
Stage 1	0	-	-	-	-	-	381	400	-	0	0	-
Stage 2	0	-	-	-	-	-	361	382	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	830	-	-	79	98	388	-	-	376
Mov Cap-2 Maneuver	-	-	-	-	-	-	79	98	-	-	-	-
Stage 1	-	-	-	-	-	-	381	400	-	-	-	-
Stage 2	-	-	-	-	-	-	353	374	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	23.1	14.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	208	-	-	830	-	-	376
HCM Lane V/C Ratio	0.044	-	-	0.011	-	-	0.003
HCM Control Delay (s)	23.1	-	-	9.4	0	-	14.6
HCM Lane LOS	C	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	3	21	229	184	44
Future Vol, veh/h	6	3	21	229	184	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	4	8	0
Mvmt Flow	7	3	23	249	200	48

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	519	224	248	0	-	0
Stage 1	224	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	521	820	1330	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	760	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	511	820	1330	-	-	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1330	-	584	-	-
HCM Lane V/C Ratio	0.017	-	0.017	-	-
HCM Control Delay (s)	7.8	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	21	250	187	0
Future Vol, veh/h	0	4	21	250	187	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	4	8	0
Mvmt Flow	0	4	23	272	203	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	521	203	203	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	519	843	1381	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	509	843	1381	-	-	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1381	-	843	-	-
HCM Lane V/C Ratio	0.017	-	0.005	-	-
HCM Control Delay (s)	7.7	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

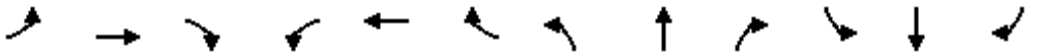
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	15	229	184	14
Future Vol, veh/h	0	9	15	229	184	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	4	8	0
Mvmt Flow	0	10	16	249	200	15

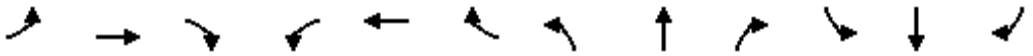
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	208	215	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	837	1367	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	837	1367	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1367	-	837	-	-
HCM Lane V/C Ratio	0.012	-	0.012	-	-
HCM Control Delay (s)	7.7	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	585	123	69	917	37	111	74	44	59	145	55
Future Volume (vph)	54	585	123	69	917	37	111	74	44	59	145	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	120		0	175		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	70			70			70			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.994			0.944			0.959	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1829	0	1752	1853	0	1770	1760	0	1805	1809	0
Flt Permitted	0.095			0.156			0.626			0.552		
Satd. Flow (perm)	180	1829	0	288	1853	0	1166	1760	0	1049	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			3			27			20	
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		369			525			416			197	
Travel Time (s)		5.0			7.2			11.3			5.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	2%	3%	2%	0%	2%	3%	0%	0%	1%	0%
Adj. Flow (vph)	57	616	129	73	965	39	117	78	46	62	153	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	745	0	73	1004	0	117	124	0	62	211	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		50			40			50			50	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	

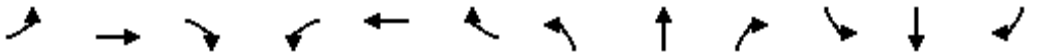


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	45.0	45.0		8.0	56.0		8.0	8.0		8.0	19.0	
Minimum Split (s)	52.0	52.0		11.0	63.0		13.0	13.0		11.0	24.0	
Total Split (s)	52.0	52.0		11.0	63.0		26.0	26.0		11.0	37.0	
Total Split (%)	52.0%	52.0%		11.0%	63.0%		26.0%	26.0%		11.0%	37.0%	
Maximum Green (s)	45.0	45.0		8.0	56.0		21.0	21.0		8.0	32.0	
Yellow Time (s)	5.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		3.0	7.0		5.0	5.0		3.0	5.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	47.5	47.5		60.2	56.2		17.4	17.4		28.0	26.0	
Actuated g/C Ratio	0.50	0.50		0.64	0.60		0.18	0.18		0.30	0.28	
v/c Ratio	0.63	0.80		0.24	0.91		0.55	0.36		0.16	0.41	
Control Delay	56.9	29.5		9.4	31.6		46.2	30.0		24.5	27.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.9	29.5		9.4	31.6		46.2	30.0		24.5	27.3	
LOS	E	C		A	C		D	C		C	C	
Approach Delay		31.5			30.1			37.9			26.7	
Approach LOS		C			C			D			C	
90th %ile Green (s)	45.0	45.0		8.0	56.0		21.0	21.0		8.0	32.0	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
70th %ile Green (s)	45.0	45.0		8.0	56.0		18.6	18.6		8.0	29.6	
70th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
50th %ile Green (s)	45.0	45.0		8.0	56.0		15.5	15.5		8.0	26.5	
50th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
30th %ile Green (s)	45.0	45.0		8.0	56.0		12.7	12.7		8.0	23.7	
30th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
10th %ile Green (s)	56.0	56.0		0.0	56.0		19.0	19.0		0.0	19.0	
10th %ile Term Code	Hold	Hold		Skip	Max		Hold	Hold		Skip	Min	
Stops (vph)	41	545		26	729		99	78		41	140	
Fuel Used(gal)	1	15		1	25		2	2		1	3	
CO Emissions (g/hr)	101	1051		74	1721		169	145		52	185	
NOx Emissions (g/hr)	20	204		14	335		33	28		10	36	
VOC Emissions (g/hr)	23	243		17	399		39	34		12	43	
Dilemma Vehicles (#)	0	35		0	48		0	0		0	0	
Queue Length 50th (ft)	25	372		15	493		66	52		27	92	
Queue Length 95th (ft)	#105	#661		36	#891		124	105		56	155	
Internal Link Dist (ft)		289			445			336			117	
Turn Bay Length (ft)	120			120			175			40		
Base Capacity (vph)	90	929		308	1105		260	414		376	629	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.63	0.80		0.24	0.91		0.45	0.30		0.16	0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 94.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 30.9		Intersection LOS: C	
Intersection Capacity Utilization 94.0%		ICU Level of Service F	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 97.6			
50th %ile Actuated Cycle: 94.5			
30th %ile Actuated Cycle: 91.7			
10th %ile Actuated Cycle: 87			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Green Grove Road & NJ Route 66



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	581	120	69	937	33	124	73	44	66	155	42
Future Volume (vph)	66	581	120	69	937	33	124	73	44	66	155	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	120		0	175		0	40		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	70			70			70			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.995			0.944			0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1814	0	1752	1855	0	1770	1761	0	1805	1825	0
Flt Permitted	0.101			0.179			0.628			0.542		
Satd. Flow (perm)	192	1814	0	330	1855	0	1170	1761	0	1030	1825	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			3			26			13	
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		369			525			416			197	
Travel Time (s)		5.0			7.2			11.3			5.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	2%	2%	3%	2%	0%	2%	3%	0%	0%	1%	0%
Adj. Flow (vph)	69	612	126	73	986	35	131	77	46	69	163	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	738	0	73	1021	0	131	123	0	69	207	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		50			40			50			50	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	49.0	49.0		8.0	60.0		8.0	8.0		8.0	19.0	
Minimum Split (s)	56.0	56.0		11.0	67.0		13.0	13.0		11.0	24.0	
Total Split (s)	56.0	56.0		11.0	67.0		22.0	22.0		11.0	33.0	
Total Split (%)	56.0%	56.0%		11.0%	67.0%		22.0%	22.0%		11.0%	33.0%	
Maximum Green (s)	49.0	49.0		8.0	60.0		17.0	17.0		8.0	28.0	
Yellow Time (s)	5.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		3.0	7.0		5.0	5.0		3.0	5.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	51.4	51.4		64.1	60.1		17.0	17.0		27.6	25.6	
Actuated g/C Ratio	0.53	0.53		0.66	0.62		0.17	0.17		0.28	0.26	
v/c Ratio	0.68	0.77		0.22	0.89		0.65	0.38		0.19	0.43	
Control Delay	58.8	26.5		8.3	28.9		54.9	32.7		27.2	30.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.8	26.5		8.3	28.9		54.9	32.7		27.2	30.8	
LOS	E	C		A	C		D	C		C	C	
Approach Delay		29.2			27.6			44.2			29.9	
Approach LOS		C			C			D			C	
90th %ile Green (s)	49.0	49.0		8.0	60.0		17.0	17.0		8.0	28.0	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
70th %ile Green (s)	49.0	49.0		8.0	60.0		17.0	17.0		8.0	28.0	
70th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
50th %ile Green (s)	49.0	49.0		8.0	60.0		17.0	17.0		8.0	28.0	
50th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
30th %ile Green (s)	49.0	49.0		8.0	60.0		14.5	14.5		8.0	25.5	
30th %ile Term Code	Max	Max		Max	Max		Gap	Gap		Max	Hold	
10th %ile Green (s)	60.0	60.0		0.0	60.0		19.0	19.0		0.0	19.0	
10th %ile Term Code	Hold	Hold		Skip	Max		Hold	Hold		Skip	Min	
Stops (vph)	50	536		24	755		111	81		46	147	
Fuel Used(gal)	2	14		1	25		3	2		1	2	
CO Emissions (g/hr)	122	983		71	1728		204	149		53	171	
NOx Emissions (g/hr)	24	191		14	336		40	29		10	33	
VOC Emissions (g/hr)	28	228		16	401		47	35		12	40	
Dilemma Vehicles (#)	0	34		0	48		0	0		0	0	
Queue Length 50th (ft)	34	380		16	536		79	55		32	100	
Queue Length 95th (ft)	#119	#566		32	#862		#161	110		65	166	
Internal Link Dist (ft)		289			445			336			117	
Turn Bay Length (ft)	120			120			175			40		
Base Capacity (vph)	101	962		332	1142		208	335		354	533	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.68	0.77		0.22	0.89		0.63	0.37		0.19	0.39	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 97.7			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 30.1		Intersection LOS: C	
Intersection Capacity Utilization 94.2%		ICU Level of Service F	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 100			
50th %ile Actuated Cycle: 100			
30th %ile Actuated Cycle: 97.5			
10th %ile Actuated Cycle: 91			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Green Grove Road & NJ Route 66

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	661	65	58	1055	1	20	0	100	3	0	5
Future Vol, veh/h	1	661	65	58	1055	1	20	0	100	3	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	1	2	2	2	0	0	0	3	0	0	0
Mvmt Flow	1	681	67	60	1088	1	21	0	103	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1089	0	0	748	0	0	1928	1926	715	1926	1959	1089
Stage 1	-	-	-	-	-	-	717	717	-	1209	1209	-
Stage 2	-	-	-	-	-	-	1211	1209	-	717	750	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.23	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	648	-	-	861	-	-	51	67	429	51	64	264
Stage 1	-	-	-	-	-	-	424	437	-	225	258	-
Stage 2	-	-	-	-	-	-	225	258	-	424	422	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	648	-	-	861	-	-	43	55	429	33	53	264
Mov Cap-2 Maneuver	-	-	-	-	-	-	43	55	-	33	53	-
Stage 1	-	-	-	-	-	-	423	436	-	224	213	-
Stage 2	-	-	-	-	-	-	182	213	-	321	421	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	31.2	60.5
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	648	-	-	861	-	-	73
HCM Lane V/C Ratio	0.48	0.002	-	-	0.069	-	-	0.113
HCM Control Delay (s)	31.2	10.6	0	-	9.5	0	-	60.5
HCM Lane LOS	D	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	2.4	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	661	65	58	1003	15	20	0	100	0	0	53
Future Vol, veh/h	0	661	65	58	1003	15	20	0	100	0	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	Stop	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	1	2	2	2	27	0	0	3	0	0	8
Mvmt Flow	0	681	67	60	1034	15	21	0	103	0	0	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	748	0	0	1869	1869	715	-	-	1034
Stage 1	-	-	-	-	-	-	715	715	-	-	-	-
Stage 2	-	-	-	-	-	-	1154	1154	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	7.1	6.5	6.23	-	-	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.5	4	3.327	-	-	3.372
Pot Cap-1 Maneuver	0	-	-	861	-	0	56	73	429	0	0	274
Stage 1	0	-	-	-	-	0	425	438	-	0	0	-
Stage 2	0	-	-	-	-	0	242	274	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	861	-	-	39	61	429	-	-	274
Mov Cap-2 Maneuver	-	-	-	-	-	-	39	61	-	-	-	-
Stage 1	-	-	-	-	-	-	425	438	-	-	-	-
Stage 2	-	-	-	-	-	-	162	229	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	36.4	21.4
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	234	-	-	861	-	274
HCM Lane V/C Ratio	0.529	-	-	0.069	-	0.199
HCM Control Delay (s)	36.4	-	-	9.5	0	21.4
HCM Lane LOS	E	-	-	A	A	C
HCM 95th %tile Q(veh)	2.8	-	-	0.2	-	0.7

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	8	750	2	8	1068	2	2	0	9	0	0	40
Future Vol, veh/h	8	750	2	8	1068	2	2	0	9	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	8	773	2	8	1101	2	2	0	9	0	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1103	0	0	775	0	0	1929	1909	774	1913	1909	1102
Stage 1	-	-	-	-	-	-	790	790	-	1118	1118	-
Stage 2	-	-	-	-	-	-	1139	1119	-	795	791	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	640	-	-	850	-	-	51	69	402	52	69	260
Stage 1	-	-	-	-	-	-	386	404	-	254	285	-
Stage 2	-	-	-	-	-	-	247	285	-	384	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	640	-	-	850	-	-	41	66	402	49	66	260
Mov Cap-2 Maneuver	-	-	-	-	-	-	41	66	-	49	66	-
Stage 1	-	-	-	-	-	-	378	395	-	248	278	-
Stage 2	-	-	-	-	-	-	203	278	-	367	395	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	30.1	21.4
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	155	640	-	-	850	-	-	260
HCM Lane V/C Ratio	0.073	0.013	-	-	0.01	-	-	0.159
HCM Control Delay (s)	30.1	10.7	0	-	9.3	0	-	21.4
HCM Lane LOS	D	B	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	755	2	8	1057	33	2	0	9	0	0	13
Future Vol, veh/h	0	755	2	8	1057	33	2	0	9	0	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	778	2	8	1090	34	2	0	9	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	780	0	0	1909	1919	779	-	-	1107
Stage 1	-	-	-	-	-	-	779	779	-	-	-	-
Stage 2	-	-	-	-	-	-	1130	1140	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.1	6.5	6.2	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	846	-	-	52	68	399	0	0	258
Stage 1	0	-	-	-	-	-	392	409	-	0	0	-
Stage 2	0	-	-	-	-	-	250	278	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	846	-	-	48	66	399	-	-	258
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	66	-	-	-	-
Stage 1	-	-	-	-	-	-	392	409	-	-	-	-
Stage 2	-	-	-	-	-	-	231	271	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	27.5	19.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	171	-	-	846	-	-	258
HCM Lane V/C Ratio	0.066	-	-	0.01	-	-	0.052
HCM Control Delay (s)	27.5	-	-	9.3	0	-	19.7
HCM Lane LOS	D	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	23	4	160	213	8
Future Vol, veh/h	40	23	4	160	213	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	43	25	4	174	232	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	419	237	241	0	-	0
Stage 1	237	-	-	-	-	-
Stage 2	182	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	595	807	1337	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	593	807	1337	-	-	-
Mov Cap-2 Maneuver	593	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	657	-	-
HCM Lane V/C Ratio	0.003	-	0.104	-	-
HCM Control Delay (s)	7.7	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	4	164	236	0
Future Vol, veh/h	0	23	4	164	236	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	25	4	178	257	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	443	257	257	0	-	0
Stage 1	257	-	-	-	-	-
Stage 2	186	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	576	787	1320	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	787	1320	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	851	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1320	-	787	-	-
HCM Lane V/C Ratio	0.003	-	0.032	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	17	158	211	20
Future Vol, veh/h	0	53	17	158	211	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	58	18	172	229	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	240	251	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.2	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	804	1326	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	804	1326	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1326	-	804	-	-
HCM Lane V/C Ratio	0.014	-	0.072	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-